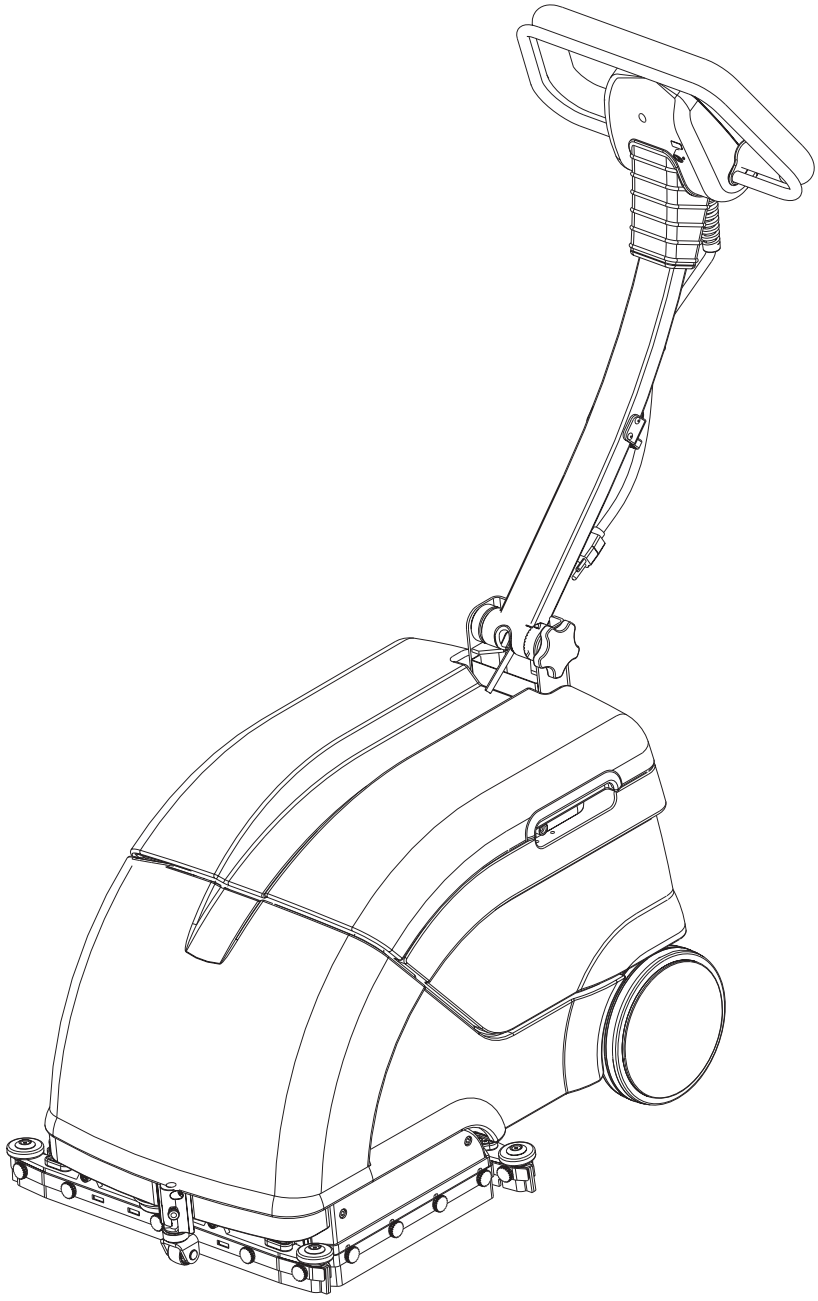
Minuteman®

# PORT A SCRUB 14

Floor Scrubber Drier



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# Instruction Manual

## Preface

Dear customer,

It is our desire that the excellent properties of the Port A scrub 14 should justify the confidence you demonstrated by making this purchase. Before first operation of your Port A scrub 14 read these instructions carefully. They will inform you in detail about operation of the item and contains valuable information on operation, service and maintenance.

Port A scrub 14 machine is an ideal machine to clean floors in small and medium areas like Offices, Hospital, Restaurant, Shopping complexes and many commercial applications.

has been used in this manual at several places and identifies particular areas that are of essence for your safety. Please pass all safety instructions on to other persons operating this machine."

The symbol,

has been used in this manual at several places and identifies particular areas that the operator should be cautious.

The symbol,

has been used in this manual at several places and identifies particular areas that the operator should note at the time of operation

Prior to first operation, read the manual carefully and strictly comply with the instructions contained.

Please be advised explicitly that we cannot accept any legal claims out of the contents of this manual.

If repair work has to be performed, make sure that only genuine spare parts are used since genuine spare parts only may guarantee continuous and dependable operation of your machine.

Valid as for JULY 2007

Minuteman International, Inc
111 South Rowling Road,
Addison, IL 60101-4244, USA.

## Introduction

### Proper Use

The Port A scrub 14 vacuum scrubbing machine has been exclusively designed for floor cleaning, such as wet scrubbing and vacuuming .Whatever sort of use beyond the specified range will be deemed improper use: the manufacturer can not be held liable for consequential damages.

The term of proper use also includes compliance with the manufacturer's instructions about operation, maintenance and repair.

The Port A scrub 14 may be used , serviced and repaired by persons only that are familiar with the machine and are aware of possible hazards involved. The appropriate Accident Prevention Regulations as well as applicable general regulations about safety and health at work will have to be complied with.

Modifications made to the Port A scrub 14 in absence of the manufacturer's consent will relieve the manufacturer from a possible liability for consequential damage.

**This machine is not suitable for evacuation of dusts, which are explosive or dangerous to health.**

**Notes on Warranty**

The terms of the sales contract apply. Damages are not subject to warranty if they are due to non-compliance with the maintenance and service provisions.

Any maintenance work has to be performed by an authorized Minuteman service workshop and confirmed in the “Maintenance certificate “which is the warranty document.

The following is excluded from warranty:

Natural wear and tear after overload, blown fuses and damages caused by inexpert handling and unauthorized modification of the machine.

Moreover, any claim for warranty expires if damages at the machine are caused by fitting of parts or accessories without Minuteman’s prior and explicit consent or by non-compliance with the maintenance instructions.

## Acceptance of the machine

Upon arrival, check your consignment for possible transit damage. Please have the railway authorities or the freight forwarder confirm such damage and mail your damage report and waybill to:

Ours Address :

Minuteman International, Inc
111 South Rowling Road,
Addison, IL 60101-4244, USA.

# General Safety Instructions

**General Safety Instructions**

Apart from the information contained in this manual, the generally applicable legal provisions for safety and prevention of accidents must be adhered to. Do not put this manual aside without having read it, even if you did already operate similar ground cleaning equipment before. Allow yourself the time to do so in order to safe time at a later moment. The operator is responsible for all persons in the working area. Children have to keep clear of the Port A scrub 14 in operation. Nobody is allowed to stay in the zone of danger.

The warning and instruction plates attached to the Port A scrub 14 give important advice about safe operation .Replace lost or illegible stickers. Before starting to work, the operator has to check that the Port A scrub 14 and its working implements are in proper and safe operating condition.

Machines with known defects must not be used. It will be of essence to make yourself familiar with all accessories and controls, as well as their functions, before you start working. Avoid the mess of having to read this book while trying to run the machine.

**Operation**

Ground cleaning machines may be run by qualified personnel only; such personal will have to have evidenced their qualification for running the machine to the owner or his authorized representative; operators explicitly will have to be instructed by the owner or his authorized representative to use the machine.

The machine may be used for cleaning such surfaces approved by the owner or this authorized representative.

To prevent damages at the brushes as well as at the floor, do not let the Machine run dry. The machine has been exclusively designed for wet scrubbing and vacuuming.

Turn the motors off, fold the support roller and the operating handle down and protect the machine against unintended movements before leaving it unattended. Use genuine spare brushes as specified by the manufacturer. Use of other than the indicated brush types may affect safety.

When transporting the Port A scrub 14, shut down the motors of the working implements. The operator has to use the machine in accordance to its intended fields of application. During operation, he has to take account of the local conditions (stairs, obstacles) and of other persons, in particular to children. Turn off the machine before any passage over dormers.

Use cleaning agents only, which are suitable for automatic machines (low foaming), and adhere to the instructions for use, disposal and to the precautions specified by the manufacturer of the cleaning agent.

**Make sure to connect the Port A scrub 14 to a socket equipped with earthed protective wire and to mains of adequate voltage and frequency**

Never collect explosive fluids, undiluted acids and solvents! This includes e.g. gasoline, paint thinners or fuel oil, Which-when penetrating the air being taken in may form explosive vapors or mixtures; moreover acetone, Undiluted acids and solvents if they should be aggressive to the material used for the machine components.

The machine may be used only on indoor hard floorings and for operation on level grounds with a maximum inclination of up to 2 %

Using the machine on public roads and places is not admitted. Qualified personnel only are admitted to perform maintenance and repair work .

Turn the machine off and disconnect the mains plug before cleaning and maintaining the machine, when replacing parts or when change over to another function.

Do not clean the machine by means of vapour jet or high pressure cleaning equipment. Do not allow water penetrate the electrical parts.

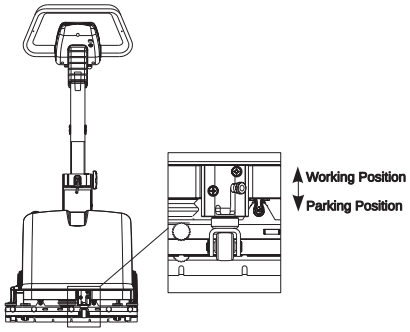
The machine is splash-water proof (IPX3).

Use of the machine in areas endangered by explosion hazard is not admitted.

## Transport

The front roller of the Port A scrub 14 has been fitted for parking the machine only and precludes damages to the floor .It is thus recommended to lift up the brush head as represented before transporting the Port A Scrub 14.

## Park Position




If not operated, the Machine has to be stored in its park position. This position is attained by using the support roller located at the front of the machine as represented. Actuate the support by a lever located above the support roller (see Fig.) And the brush head of the machine is lightly lifted. This is to preclude deformation of the brushes.

## Handling Mains cable Assembly

Make sure that the mains cables are not damaged by passing over them by pinching, pulling or other impacts. Check the mains cables for ageing and damages at regular intervals. Replace them by the type ST cable 14 AWG / 3 Core (UL / CSA approved) with 15 m length. Power plug and connectors shall be rated for 125 Volts, 20 Amps (UL / CSA approved) having standard NEMA configuration for locking types as specified by the manufacturer. When replacing the coupling plug of the mains cable or when connecting lines respect the splash water protection and the tensile strength of the components.

## Operation

### Port A scrub 14

Wet cleaning of hard floorings requires equipment with squeegee and brushes suitable for the type of floor to be cleaned.
The rotating brushes and the cleaning lye scrub the dirt and clean the floor thoroughly while the squeegee collects the lye immediately. The floor is dry and clean can be stepped on immediately.

### Useful advice for optimum cleaning

Before wet cleaning, sweeping the floor is required. This is not only to improve the cleaning effect but to significantly reduce the wearing of the machine.

In case of heavy soiling or for wax removal (basic cleaning), a second treatment of the floor may be required. In the first cycle, the floor is scrubbed with a detergent solution adopted to the degree of soiling.

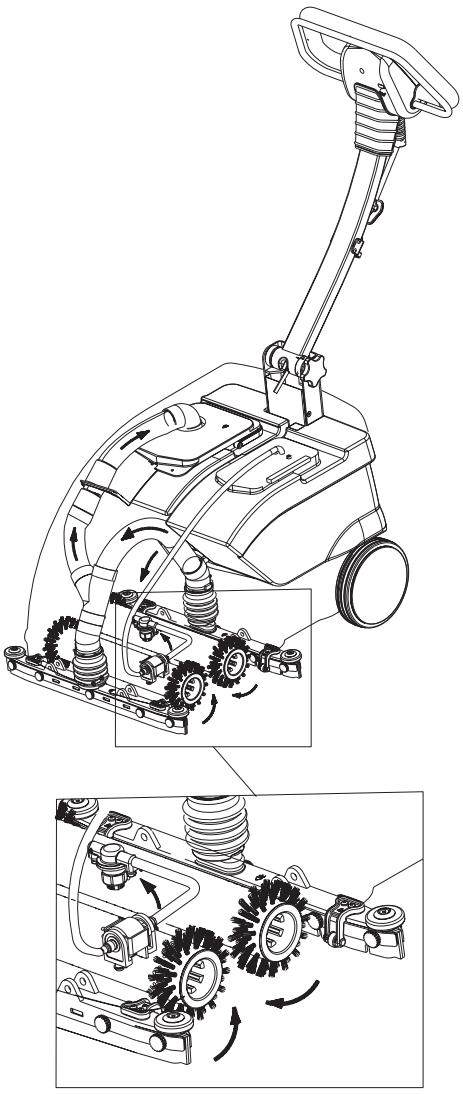
This cleaning agent acts on the floor according to the specifications of the manufacturer for about 5 to 10 minutes, then scrub the floor gain with the squeegee being lowered.

Comply with the instructions for correct dosage of detergent. Correct dosage will help you save money And protect the environment.

Occurrence of great quantities of foam will affect functioning of your machine.

Actually, it indicates excessive dosage or improper suitability of dosing and degree of soiling. Unused detergent particles in the soiled water lead to formation of foam. Refer to the detergent reservoir for information on correct dosage. Take the manufacturer's recommendations as a first basis. Test made by yourself in practice will help you find the ideal type of detergent and the perfect dosage applicable to it.

Working Principle



## First Operation

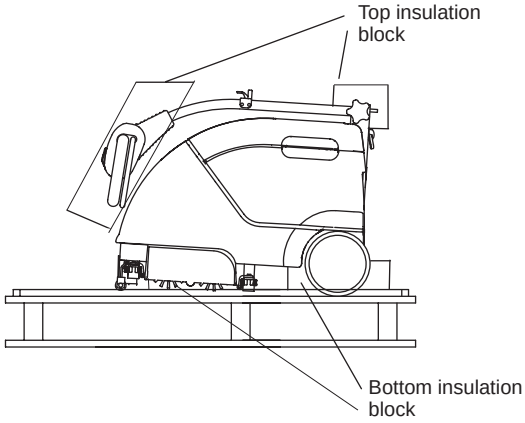
**Assembly**

The Port A scrub 14 is delivered in a card board box. The bottom is a wooden pallet to which the machine is fastened by plastic straps. Open the bottom side of the box and pull it upwards, then loosen the straps and take the machine from pallet.

**Before Operation**

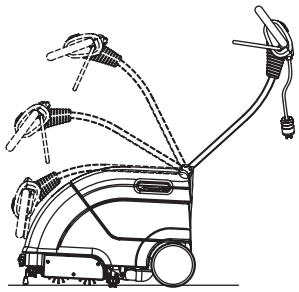
1. Upon delivery, the Port A scrub 14 has been secured by insulation blocks at the bottom and the top to preclude unwanted movement of the machine. After taking the machine from the pallet:

(I) Open the cardboard box at the top side
(II) Remove the insulation blocks
(III) Take the Port A scrub 14 off the box and avoid any damage to the machine
(IV) The operating handle of the Machine is still in its transport position.

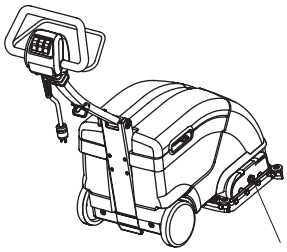


CAUTION: Mains-operated machine! Qualified personnel only is admitted to open the machine; Any work such as e.g. Maintenance or repair actions at the electric components have to be executed with adequate tools only and by qualified personnel only.

2. After taking the Port A scrub 14 to its park position, set the operating handle into its working position by releasing the button at the side. After the handle has been set into service position, engage the button again to preclude the handle from displacing. After operation, the handle can be folded back again as described above. In this folded position the handle is protected against the damages and requires less storing space.



3. Open the lateral brush head cover by loosening the screw. Then insert the enclosed brushes into the housing. The Port A scrub 14 has been equipped with screws to facilitate removal and fastening of the brushes



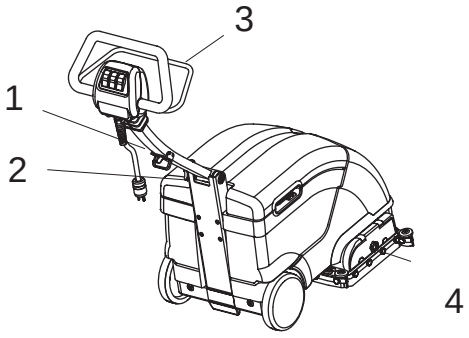

4. After folding of the lid, filling of the fresh water tank is possible. Before filling with fresh water, take the support roller out of its parking position.

**Make sure that all covers and flaps have been fitted before starting operation**

**A damaged mains cable has to be replaced by specific cable available at the manufacturer or an authorized service centre.**

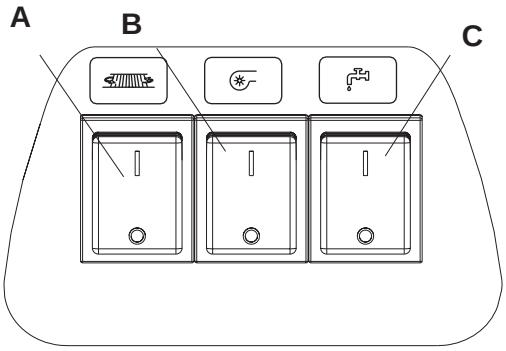
## Description

**Controls**




1.Adjustable handle
2.Button for Handle
3.Squeegee Governor (forward, reverse)
4.Screw for brush removal

## Control panel




1. Brush motor, suction motor and water pump switches

**A. Brush motor switch ON / OFF**

- Function in ON if switch “A” is in position “I”

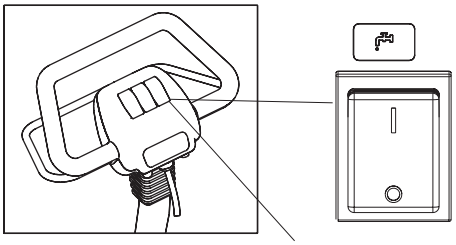
**B. Suction motor switch ON / OFF**

- Function in ON if switch “B” is in position “I”

**C Water pump switch ON / OFF**

- In “I” position of the switch, water is steadily pumped to the floor.
- In “0” position of the switch, no water is pumped.

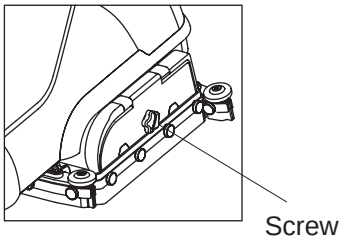
**2. Detergent infeed**



Pump Switch

- The Port A Scrub 14 allows mixing of cleaning lye and fresh water in the tank. The amount of detergent required for cleaning can be regulated by the pump switch. If the switch is set to the position “I” the cleaning lye is continuously supplied. If the solution is required by intervals only, press the switch and hold in position “I”. This function helps to save detergent.

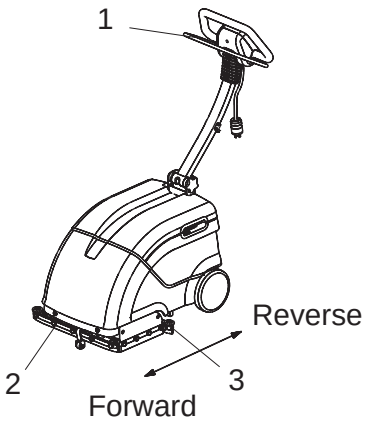
**Screw for fitting the Brush**




Disconnect the mains plug before mounting or dismounting the brush. Loosen the screw for fitting the brush before use of the machine and afterwards for removal of the brush. Change the brush position after each use in order to preclude one-side wearing.

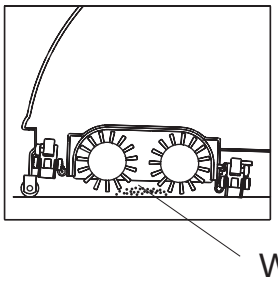
- Loosen the screw before dismounting the brush from the Port A Scrub 14
- Dismount the brush from the Port A Scrub 14 after every use. Take the machine into the park position before

**Squeegee Governor**




1.Governing handle
2.Front squeegee
3.Rear squeegee

·The front or the rear squeegee of the Port A Scrub 14 is lowered and has contact with the floor. The operator may change squeegee position according to the direction of travel of the machine.




- If the port A Scrub 14 is in its working position and pushed forward, the rear squeegee has contact with the floor while the front squeegee is lifted.

## End of operation

Due to the counter-rotation of the brushes, some water remains between the brushes at the end of operation. Proceed thus as follows at the end of operation

- Take the machine into park position
- Turn suction motor on
- Move the machine a little bit forward

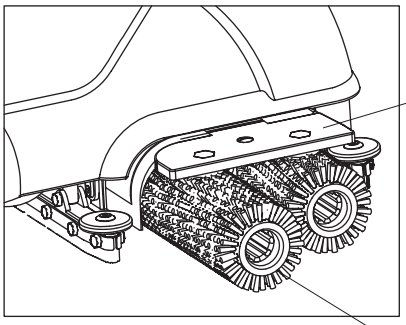
During this movement, the rear squeegee takes in the water.

**Mount / Dismount brushes**

According to the type and degree of soiling, the Port A Scrub14 can be equipped with brushes from the accessories. Refer to chapter ”Technical Data” on page 17.

**Mount Brush**

- Use the support roller located at the handle side of the Port A Scrub 14 to set the machine into its park position.
- Remove screw of the brush cover.
- Fasten supplied brushes at the drive rollers at the inside of the opposite cover.
- Close brush cover such that the guiding rollers and the brushes safely catch.




**When mounting, check the safe catching of rollers and brushes..**

**Before cleaning or maintaining the machine as well as before replacing parts of it, turn the machine off and disconnect the plug.**

**Dismount Brushes**

- Use the support roller located at the handle side of the Port A Scrub 14 to set the machine into its park position.
- Loosen screw.

**When inserting the brushes for the next operation, make sure to change position of the brush such that one- sided brush wearing is precluded.**

**Brush maintenance**

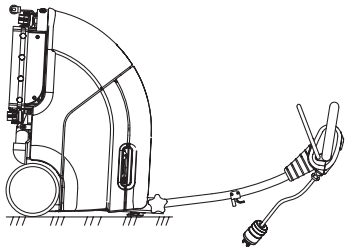


Fig. 1

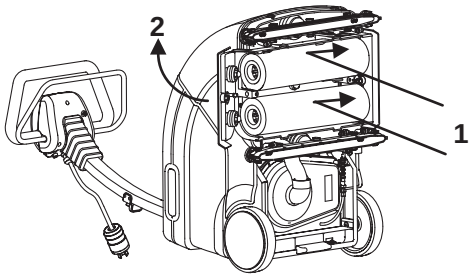



Fig. 2

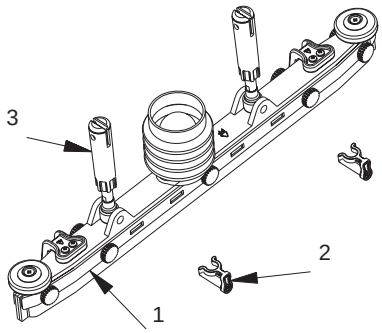
- Remove fresh and soiled water tanks
- Use the support roller located at the handle side of the Port A Scrub 14 to set the machine into its park position.
- Use the adjustment screw to set the operating handle of the machine into vertical position, and then tilt the machine down as represented.
- Loosen screw and fix the brushes manually as represented in Fig. 2 in direction 1.
- Open brush cover in direction 2.
- Remove brushes
- Clean brush compartment
- Insert brushes, close brush cover and secure with screw.
- Set Port A Scrub 14 in upright position.
- Use adjustment screw to set the operating handle into working position
- Set front support roller into working position.
- Re-insert fresh and soiled water tanks.

**Squeegee**

The Port A scrub 14 has been equipped with a squeegee of 450 mm working width. The squeegees can be lifted-out alternately

**Check the squeegee for collected foreign particles and**

**Mount Squeegee (Initial Fitting)**



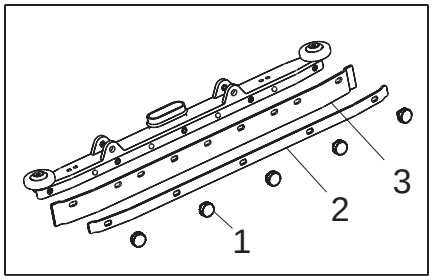

1.squeegee
2.squeegee screw
3.squeegee holder

- Lift squeegee and hold it to the squeegee holders (3).
- Mount squeegee (1) to the squeegee holder by means of screws (2) as represented
- Check the smooth running of the bottom sleeve at the squeegee holders for perfect hinging.

**Dismount Squeegee**

- Lift brush head of the Port A Scrub 14 in order to access the squeegee screws.
- Remove both screws (2) as represented.
- Pull squeegee to the bottom to remove it from the machine.

**Change Sealing Strips**




1. Knurled screw
2. Support strip
3. Sealing strip

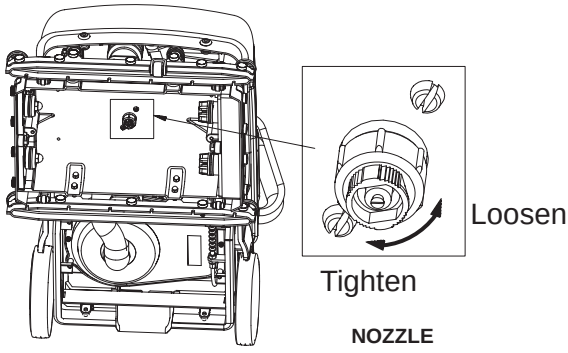
No tools are required for dismounting the sealing strips. Proceed as follows:

- Dismount squeegee (refer to paragraph “Dismount squeegee” ).
- Unscrew knurled screw (1)
- Remove support strip
- Proceed to mounting of new sealing strip in reverse order.
- Tighten the knurled screws (by hand) and from the centre towards the outsides (slotted sealing strips point to the front, plain ones to the back)

**The rear sealing strip can be turned round if worn at the front edge.**

**Clean nozzle**

The nozzle clogs after some hours of operation. It thus required to clean the nozzle at daily intervals before start of operation.




**Proceed as follows for cleaning the nozzle:**

**(I) Remove nozzle**

- Dismount brushes from the Port A Scrub 14 (see “Dismount/Mount Brushes”).
- Lift machine and lay down on its back as represented.
- Turn the nozzle to the left

**(II) Clean nozzle**

.

- Clean nozzle by compressed air or water

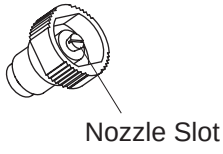
**(III) Mount nozzle**

.

- After cleaning, insert nozzle by screwing clockwise

.

- make sure that the nozzle slot is as the mounting direction of the brushes.




- Upright machine

**Fill water**

Fill fresh water and detergent as described below before start of operation.

- Open tank lid and fold back

.

- Fill fresh water tank with water (50°C max.) And detergent in relation to the dirt encountered and according to the specifications by the manufacturer.

Filling Amount : 10 litres max.

**Use detergents suitable for automatic machines (low foaming) in order to preclude damages at the suction turbine. We recommend Minuteman detergents for cleaning and care, which are perfectly adopted to the Port A Scrub 14. These products fulfil the requirements of the Detergents Act**

## Operation

**Operation**

- Use the button to take the support into working position.
- Turn switch “A” ON to make the brush rotate.
- Turn switch “C” ON to open supply of fresh water with or without detergent.
- Turn switch “B” ON to start suction turbine running.

Turn all switches OFF after operation and remove the brushes from the Port A Scrub 14. Mount the brushes in inverse order of dismounting before next operation. This measure extends service life of the brushes.

**Start operation of the machine by pushing forward immediately after switching on. This measure extends Service life of the brush motor. When bushing in reverse direction lift the rear squeegee with the squeegee governor. Make sure that during the operation of the machine the mains cable always**

**Turn the brush drive off before passing over dormers of a height of 10mm and more.**

**Danger when passing over the mains cable with rotating brushes.**
**Start cleaning in the socket area and clean by stripes. If the surface is not obstructed, start at borders and forward counter-clockwise. Clean the remaining surface by stripes and starting in the socket area.**
**Divide partly obstructed surfaces into areas in the reach of the mains cable. Within shortest time, the operator will know to avoid unnecessary hindrance caused by the mains cable.**

**At the end of cleaning:**

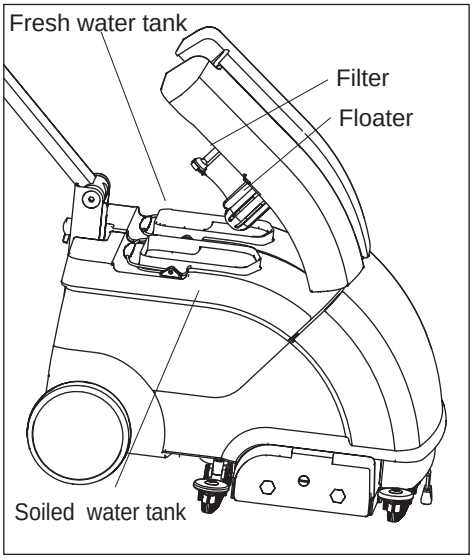
- Turn machine off and set it to its park position
- Empty and rinse soiled water tank (see paragraph ”Soiled and Fresh Water Tanks”)
- Clean sealing strips of the squeegee
- Check the sieve at the inlet opening of the fresh water tank and clean if required in order to maintain suction performance.

**Do not clean the machine by means of a water jet or high-pressure cleaning equipment to avoid endangering your safety and the operability of the machine.**

### Soiled and fresh water tanks

The Port A Scrub 14 is equipped with a soiled and a fresh water tank (lye tank). The filling amounts to 10 litres. Do not fill beyond the maximum mark and do not exceed a water temperature of 50°C

A suction hose delivers the soiled water into the soiled water tank.

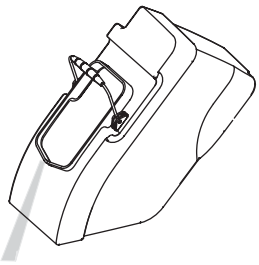



**Do not take in larger amounts of secondary water (water pools)**

**To avoid settling of residues empty and rinse the soiled And fresh water tanks after work on principle.**

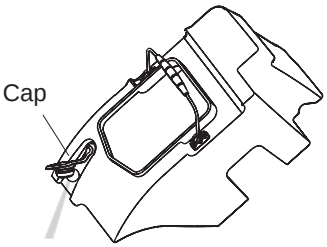
**Comply with the legal provisions for disposal of soiled Water. Check and clean the suction filter in the tank lid for soiling in regular intervals.**

### Clean soiled and fresh water tanks



- Slowly tilt the tank as represented to drain water before cleaning the tank

### Empty Soiled water tank




- Hold the tank as represented
- Open the tank and drain water
- Close cap

**Electric System**

The electric system of the Port A Scrub 14 operates at a mains voltage of 110-120V / 60Hz.

After opening the machine top, the brush motor and the suction turbine are well accessible.

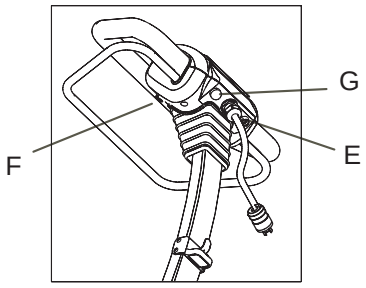
A T10A fuse (E) protects the suction turbine and has to be replaced by the same type if blown (T stands for slow-blow).

The suction turbine is low-maintenance type; its carbon brushes only have to be checked after every 200 hours of operation.

The brush motor is protected by a cutout (G) which can be manually reset. In case of tripped cut-out, detect the cause and remedy before re-starting the machine.

The pump is protected by a T0.5A fuse (F). Replace by the same type of fuse.

Reset the cut-out by pushing down the transparent dome of the fuse box. After tripping, wait for approx. 30 seconds before resetting.




E .Suction motor fuse
F. Pump fuse
G. Brush motor cut-out

**In case of repeated fuse blowing detect the cause. We recommend having all work at the electric System done by qualified personnel only.**

**Before starting work at the electric system, disconnect the mains plug. After work at the electric system is finished, proceed to a safety test**

## Technical Data

| | | | |
|---|---|---|---|
| **Dimensions** | | | |
| Length | mm | 700 | |
| Width | mm | 470 | |
| Height (with closed Handle) | mm | 540 | |
| **Working width** | | | |
| Squeegee | mm | 450 | |
| Scrubbing | mm | 350 | |
| **Surface performance,** | | | |
| Theoretical | m2/h | 1400 | |
| **Driving speed** | Up to km/h | 4 | |
| **Weights** | | | |
| Deadweight, dry | kg | 40-43 | |
| Total weight, ready to operate, wet | kg | 50-53 | |

| | | | |
|---|---|---|---|
| **Wheel** | | | |
| Rear wheel, dia | mm | 175 | |
| **Tank capacities** | | | |
| Fresh water tank | l | 10 | |
| Soiled water tank | l | 11 | |
| Throughput , max. | l/min | 0.5 | |
| **Brush head** | | | |
| No. of brushes | Qty. | 2 | |
| Brush dia | mm | 100 | |
| Brush speed | rpm | 780 | |
| Brush contact pressure, max.up to | kg (N ) | 16-19 | |
| **Vacuum suction** | | | |
| Nominal vacuum pressure, min. | mm Hg | 60-80 | |
| **Electrical equipment** | | | |
| Rated Current, max. | A | 14 | |
| Rated voltage | AC/Volt | 110-120 | |
| Frequency | Hz | 60 | |
| Nominal power, total, max. | W | 1340 | |
| Circuit breaker for brush motor | A | 9 | |
| Fuse for vacuum motor | A | T10 | |
| Brush motor | W | 600 | |
| Suction turbine | W | 850 | |
| Pump | W | 29 | |
| Fuse for Pump | A | T0.5 | |
| **Noise level** | | | |
| Sound pressure level | db(A) | 73 | |

| Brushes | Intended Use |
|---|---|
| Brush, PA | Smooth floor |
| Brush, PP | Medium Smooth Floor |
| Brush,Silicon Carbide | Hard Floor |

## Maintenance

**Maintenance work**

Compliance with our recommendations concerning maintenance work will give you the certitude always having a machine at your disposal, which is ready to work and in good operating condition.

It is better to take precautions than to repair damages - and less expensive! Please contact your local contract dealer; the people there will be glad to perform that work for you. There well trained personnel and genuine spare parts are at your disposal. In case of any inquiries or orders for spare parts, please always quote the machine's serial number indicated on the nameplate. The nameplate is located at the rear side of the machine.

**Turn the machine off and disconnect the mains plug before cleaning or maintaining the machine.**

For safety reasons, secure the lifted tank lid against inadvertently closing or lowering during all cleaning or maintenance work in or at the tank. Operate the machine only with all safety devices being fitted and in protective position. Do not proceed to cleaning by hand but use appropriate tools or auxiliary means. Maintenance or repair work has to be done using appropriate tools and by qualified personnel only. For safety reasons use genuine spare parts.

**Before proceeding to the maintenance and/or inspection or repair works mentioned in following, execute a functional check of all operating elements and units in order to detect Eventual failures. After repair work has finished, operate the machine after having performed a safety check only.**

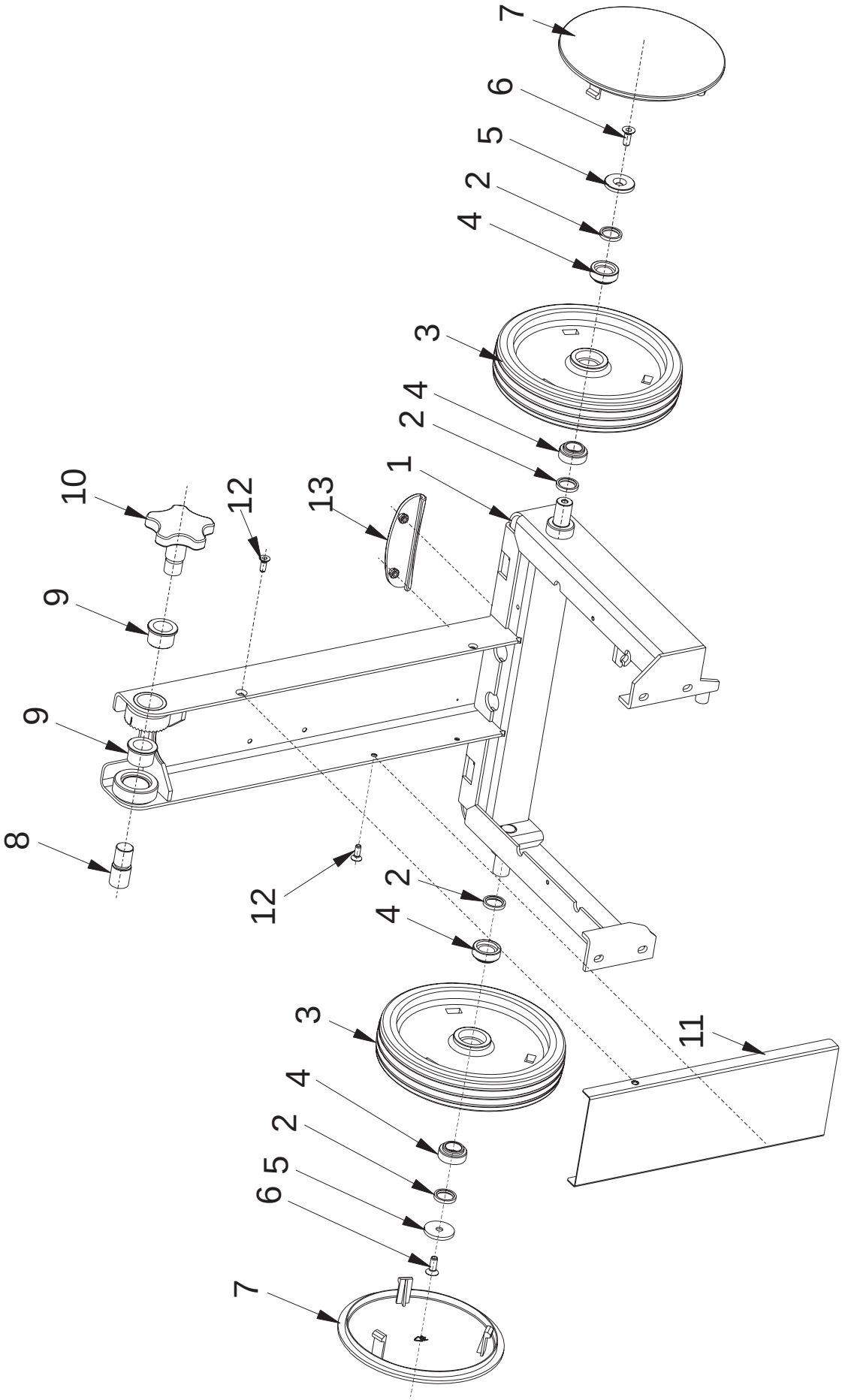
| **Maintenance work** | Daily | Service hours every 50 | every 100 | every 200 |
|---|---|---|---|---|
| Check connections, extension cable and plug for good condition, replace defective cable | X | | | |
| Empty and clean (rinse) soiled water tank | X | | | |
| Check sealing strips at the squeegee for condition. | X | | | |
| Check squeegee for collected foreign matters and clean if required | X | | | |
| Check the floater for function | X | | | |
| Check filter sieve of the fresh water tank and clean if required.. | X | | | |
| Check squeegee sealing strips for wearing and replace if required. | | X | X | X |
| Check the brush for tight fit and wearing and replace if required. Clean brush casing by Brush | X | X | X | X |
| Check the tank lid gasket and replace if required. | | | X | X |
| Check fresh water infeed to the brushes | | X | X | X |
| Check suction motor from carbon dust and check carbon brushes for smooth operation and wearing. Replace carbon brushes if required. | | | | X |
| Clean nozzle | X | | | |

**Disconnect the mains plug before executing maintenance or repair work. After these works have Finished, proceed to a safety check.**

Minuteman®

Port A Scrub 14
Floor Scrubber Drier

# Spare Parts Manual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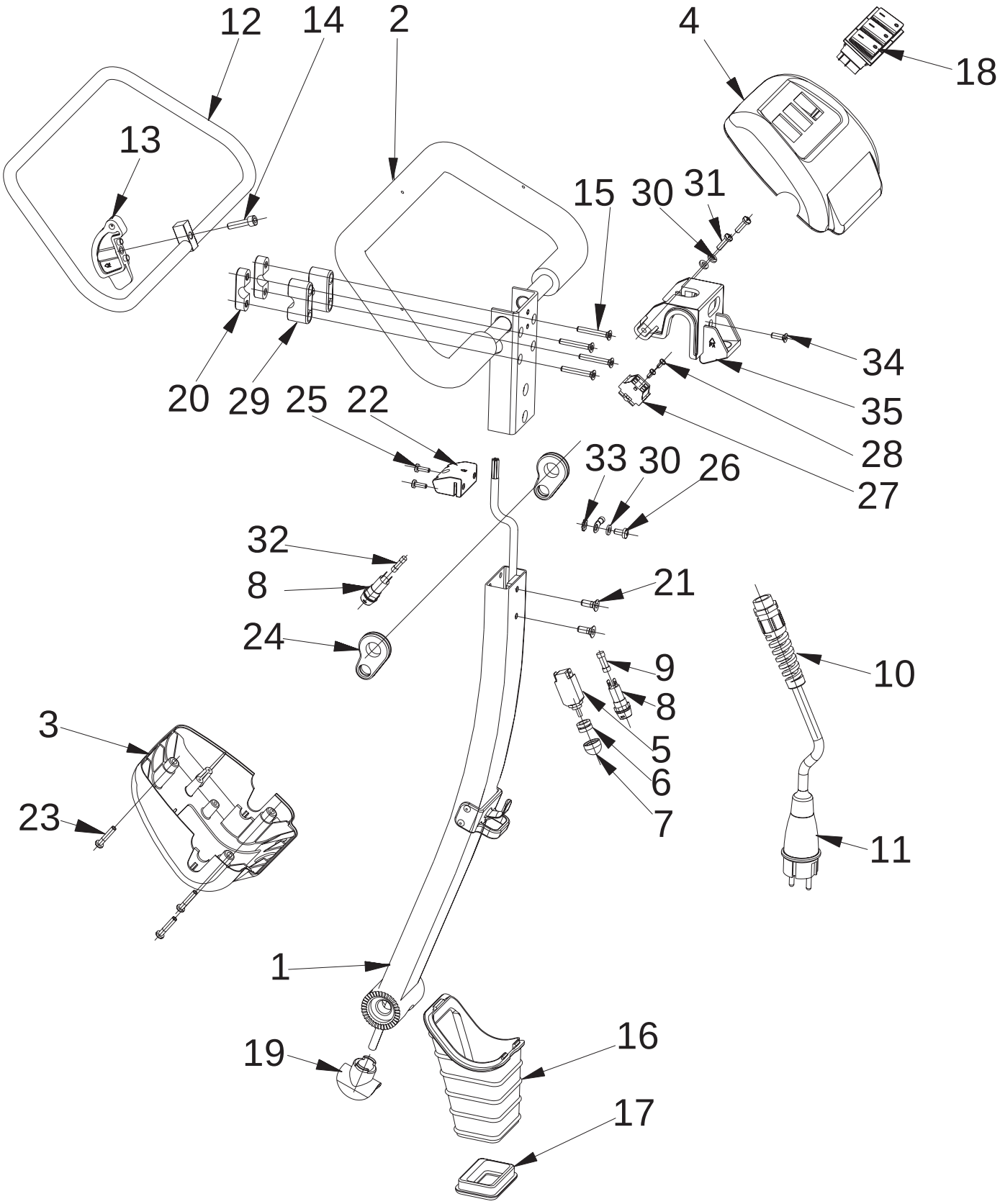
# Chassis Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3180004 | Base Frame Assy | | 1 |
| 2 | 3130077 | Seal - Wheel | | 4 |
| 3 | 931756 | Wheel | | 2 |
| 4 | 3130071 | Bush-Wheel | | 4 |
| 5 | 3130038 | Washer-Main Wheel | | 2 |
| 6 | 829306 | Hex. Soc. CSK. Head Screw SS | M6x16 | 2 |
| 7 | 931128 | Cover Wheel | | 2 |
| 8 | 931045 | Hex Soc. Head Pin | | 1 |
| 9 | 3130054 | Bush LH&RH- Pillar Handle | | 2 |
| 10 | 931753 | Knob - Handle | | 1 |
| 11 | 931783 | Cover Assy - Pillar | | 1 |
| 12 | 829203 | Hex.Soc.CSK. Head Screw SS | M5x10 | 2 |
| 13 | 3130062 | Lifting Handle-Frame | | 1 |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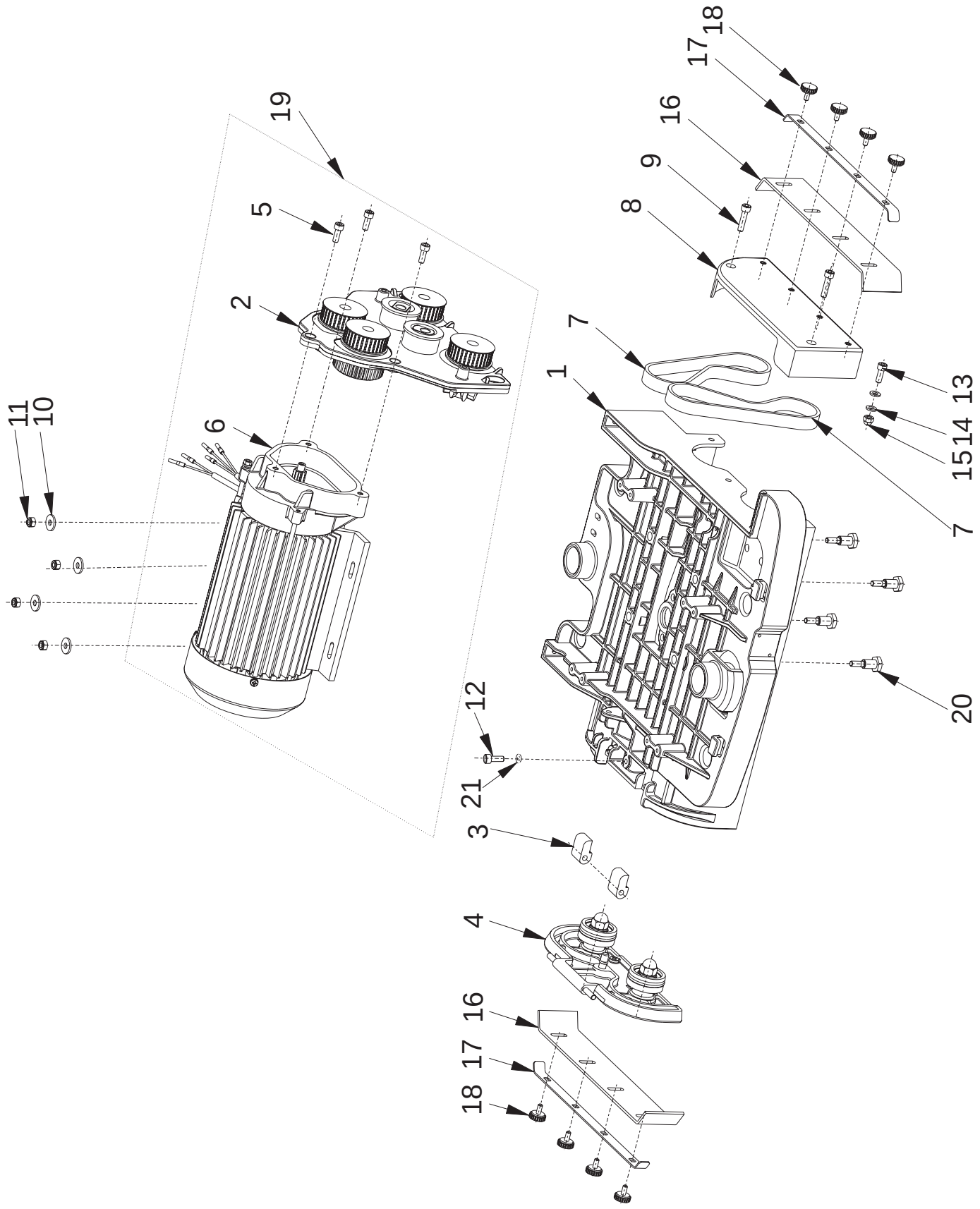
# Handle Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3180016 | Handle (Weldment) | | 1 |
| 2 | 3180029 | Steering Assy | | 1 |
| 3 | 931281 | Switch Cover - Bottom | | 1 |
| 4 | 3130120 | Switch Cover - Top | | 1 |
| 5 | 847001 | Circuit Breaker 9A | | 1 |
| 6 | 928107 | Nut - Circuit Breaker | | 1 |
| 7 | 925124 | Cap - Circuit Breaker | | 1 |
| 8 | 927095 | Fuse Holder | | 2 |
| 9 | 932106 | Glass Fuse - T10A | | 1 |
| 10 | 872004 | Cable Gland with Spiral Guards PG16 | | 1 |
| 11 | 931835 | Power Cable Assy | 12m | 1 |
| 12 | 931776 | Shifter Assy | | 1 |
| 13 | 931174 | Bracket - Shifter | | 1 |
| 14 | 831308 | Hex. Soc. Hd Cap Screw - St | M6X25 | 1 |
| 15 | 828210 | Hex. Soc. Csk Hd Screw - St | M5X35 | 4 |
| 16 | 931183 | Bellow - Handle | | 1 |
| 17 | 931199 | Plug - Handle Cover | | 1 |
| 18 | 3530072 | Switch | | 3 |
| 19 | 931182 | Boot Cable | | 1 |
| 20 | 931166 | Guide - Shifter Top | | 2 |
| 21 | 829306 | Hex Soc CSK HD Screw | M6X16 | 2 |
| 22 | 931158 | Guide - Rope | | 1 |
| 23 | 837208 | CRPH Self Tapping Screw - St | 4.8X25 | 3 |
| 24 | 931194 | Grommet - Switch Cover | | 2 |
| 25 | 818104 | CR Pan Head Screw - SS | M4X12 | 2 |
| 26 | 817203 | CR Pan Head Screw - St | M5X10 | 1 |
| 27 | 931845 | Connector - Elec. Box | | 1 |
| 28 | 836004 | CRPH Self Screw - SS | 3.5X13 | 2 |
| 29 | 931134 | Guide - Shifter Bottom | | 2 |
| 30 | 845052 | Washer - SS | 5.2X10X1.6 | 3 |
| 31 | 837207 | CRPH Self Tapping Screw - St | 4.8X16 | 2 |
| 32 | 931234 | Glass Fuse - T0.5A | | 1 |
| 33 | 866050 | External Toothed Washer - St | M5 | 1 |
| 34 | 812205 | CRCSK Screw | M5x15 | 1 |
| 35 | 3130072 | Bracket-Channel | | 1 |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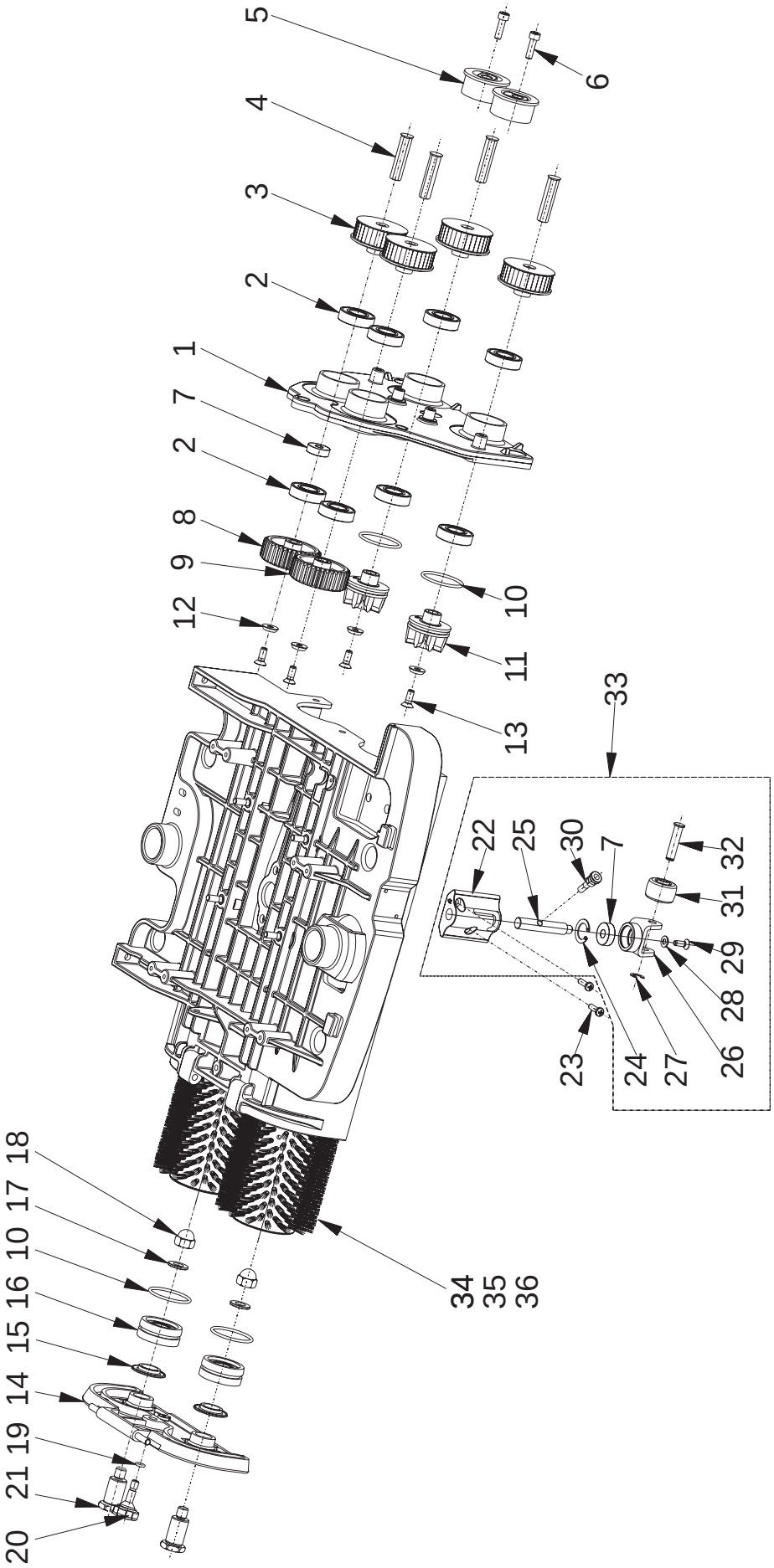
# Brush Drive Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130002 | Housing - Brush | | 1 |
| 2 | 3180022 | Housing Assy-Gear Support | | 1 |
| 3 | 931171 | Hinge - Idler End | | 2 |
| 4 | 3180062 | Idler Support Assy Brush | | 1 |
| 5 | 831306 | Hex. Soc.Hd Cap Screw -SS | M6X16 | 3 |
| 6 | 3180053 | Brush Motor | | 1 |
| 7 | 925002 | Drive Belt 425-5M-15-HTD | | 2 |
| 8 | 3180028 | Cover - With Seal | | 1 |
| 9 | 831308 | Hex-Soc-Hd-Cap-Screw | M6X25 | 2 |
| 10 | 844063 | Washer | 6.4X18X2 | 4 |
| 11 | 859068 | Hex. Nylock Nut - St | M6 | 4 |
| 12 | 818206 | CRPH-Screw | M5X16 | 1 |
| 13 | 831306 | Hex Soc Hd Cap Screw | M6x16 | 1 |
| 14 | 844061 | Washer | 6.4X12X1.6 | 2 |
| 15 | 838060 | Domed Cap Nut-SS | M6 | 1 |
| 16 | 931235 | Lip-Flash Guard | | 2 |
| 17 | 3130024 | Strip-Flash Guard | | 2 |
| 18 | 931172 | Knob-SQG | | 8 |
| 19 | 3180052 | Geared Motor with Drive | | 1 |
| 20 | 3130010 | Stud-Brush Housing | | 4 |
| 21 | 845052 | Washer | 5.2X10X1.6 | 1 |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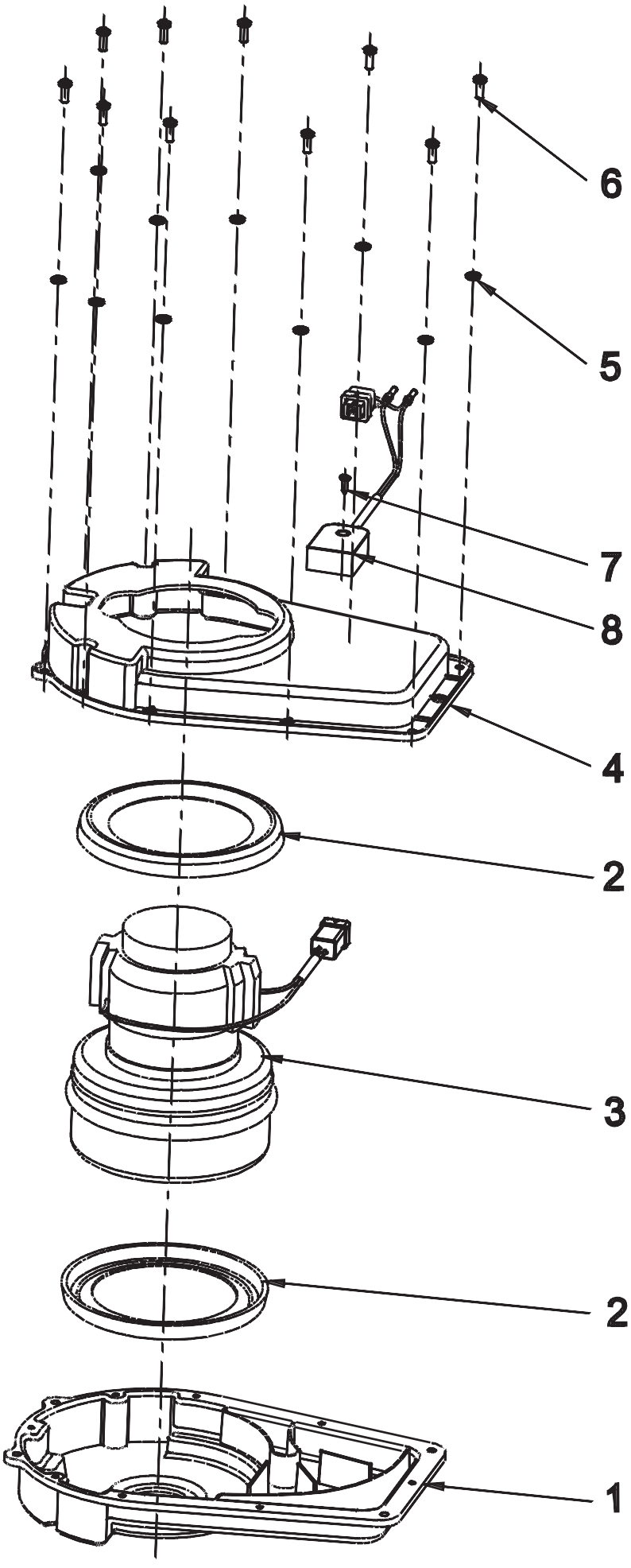
# Brush Head Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130006 | Housing-Gear Support | | 1 |
| 2 | 875010 | Bearing | 6003 2RS | 8 |
| 3 | 3180008 | Sprocket Assy Gear | | 4 |
| 4 | 931027 | Drive Key | | 4 |
| 5 | 931815 | Idler - Plain Assy | | 2 |
| 6 | 831307 | Hex. Soc. Hd Cap Screw - St | M6X20 | 2 |
| 7 | 875011 | Bearing | 608 2Z | 2 |
| 8 | 931036 | Gear-LH | | 1 |
| 9 | 931035 | Gear-RH | | 1 |
| 10 | 854007 | O' Ring | 36X2.5 | 4 |
| 11 | 931129 | Pulley-Drive | | 2 |
| 12 | 925012 | Washer-Bridge | | 4 |
| 13 | 829306 | Hex-Soc-CSK-Hd-Screw-SS | M6X16 | 4 |
| 14 | 3130005 | Cover Idler End | | 1 |
| 15 | 931157 | Spacer-Idler End | | 2 |
| 16 | 3130075 | Idler Pulley - Brush | | 2 |
| 17 | 845101 | Washer-SS-304 | 10.5X20X2 | 2 |
| 18 | 838100 | Domed Cap Nut-SS | M10 | 2 |
| 19 | 854008 | Oring | 6X2.0 | 1 |
| 20 | 931758 | Knob | | 1 |
| 21 | 3130042 | Pin-Idler End | | 2 |
| 22 | 3130066 | Bracket-Parking Wheel | | 1 |
| 23 | 837207 | Self Tapping Screw | 4.8X16 | 2 |
| 24 | 881041 | Circlip Internal | Light B22 | 1 |
| 25 | 3130035 | Pin-Parking Stand | | 1 |
| 26 | 3180024 | Bracket-Castor | | 1 |
| 27 | 925129 | Circlip | E6.0 (Type C) | 1 |
| 28 | 3130021 | Washer-Castor | | 1 |
| 29 | 829203 | Hex-Soc-CSK-Hd-Screw-SS | M5X10 | 1 |
| 30 | 3130067 | Knob-Parking Wheel | | 1 |
| 31 | 3130043 | Wheel-Parking | | 1 |
| 32 | 3130034 | Pin-Wheel | | 1 |
| 33 | 3180023 | Parking Wheel Kit | | 1 |
| **OPTIONAL** | | | | |
| 34 | 931892 | Brush (PA / Blue) | | 2 |
| 35 | 931893 | Brush (PP / Black) | | 2 |
| 36 | 931894 | Brush (SIC / Grey) | | 2 |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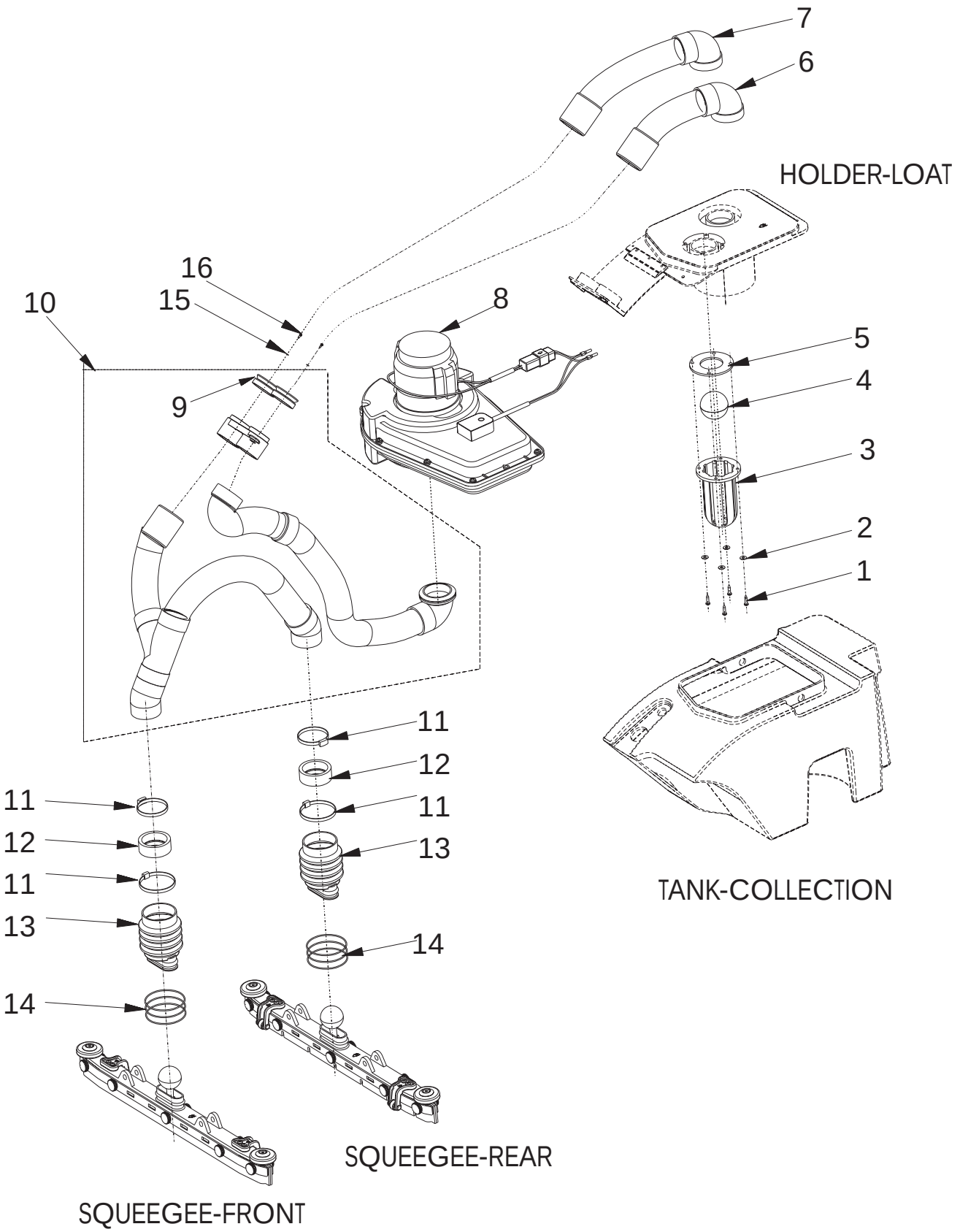
# Vacuum Motor Assembly

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130046 | Hsg Bottom - V.M | | 1 |
| 2 | 931197 | Gasket - V.M | | 2 |
| 3 | 931857 | V.M with Connector Assy | | 1 |
| 4 | 3130047 | Hsg Top - V.M | | 1 |
| 5 | 845052 | Washer - SS 304 | 5.2X10X1.6 | 10 |
| 6 | 837210 | Self Tap Screw | 4.8X13 | 10 |
| 7 | 836004 | CRPH Self Screw - St | 3.5X13 | 1 |
| 8 | 3180032 | Wire Assy - V.M Capacitor | | 1 |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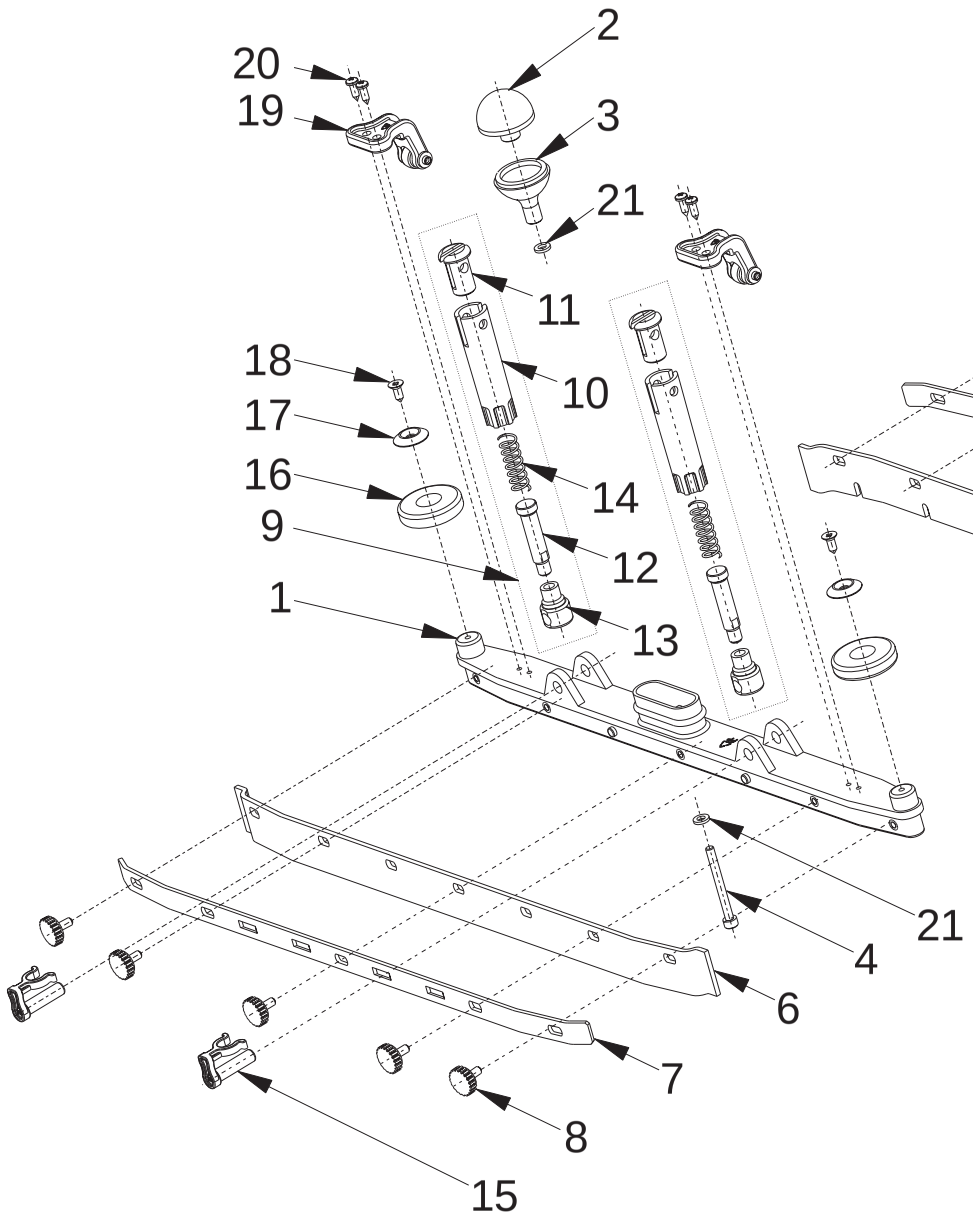
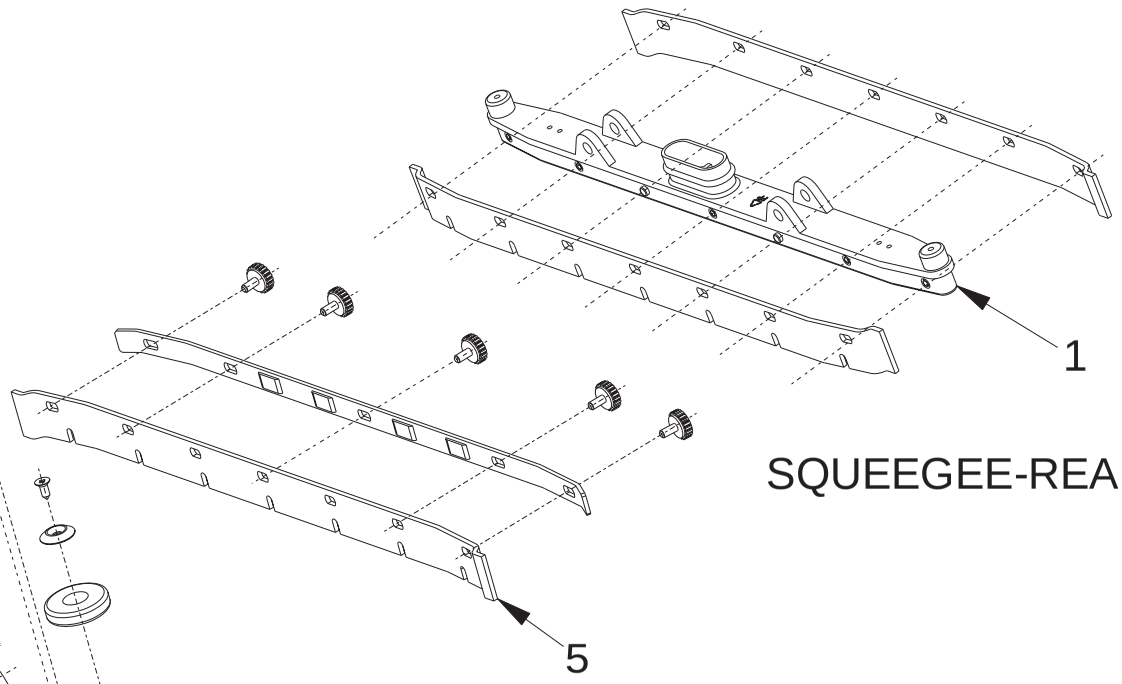
TANK-COLLECTION
SQUEEGEE-REAR
SQUEEGEE-FRONT

# Vacuum Motor Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 836206 | CRPH Self Tapping Screw - SS | 3.5X16 | 4 |
| 2 | 845039 | Washer - SS | 4.0X8.0X0.5 | 4 |
| 3 | 931132 | Guide - Float | | 1 |
| 4 | 931810 | Float | | 1 |
| 5 | 931196 | Gasket - Float | | 1 |
| 6 | 931850 | Hose Assy - Vacuum | | 1 |
| 7 | 931851 | Hose Assy - Collection | | 1 |
| 8 | 3180054 | Vacuum Motor Sub Assy | | 1 |
| 9 | 931204 | Gasket - Lip | | 2 |
| 10 | 3180044 | Hose Assy SQG Group | | 1 |
| 11 | 881056 | Cable tie Black | 292 mm | 4 |
| 12 | 931191 | Lip - Valve | | 2 |
| 13 | 931184 | Bellow - Sqg | | 2 |
| 14 | 931054 | Ring - Bellow | | 6 |
| 15 | 844043 | Washer - SS | 4.3X12X1.0 | 2 |
| 16 | 818104 | CRPH Screw | M4X12 | 2 |



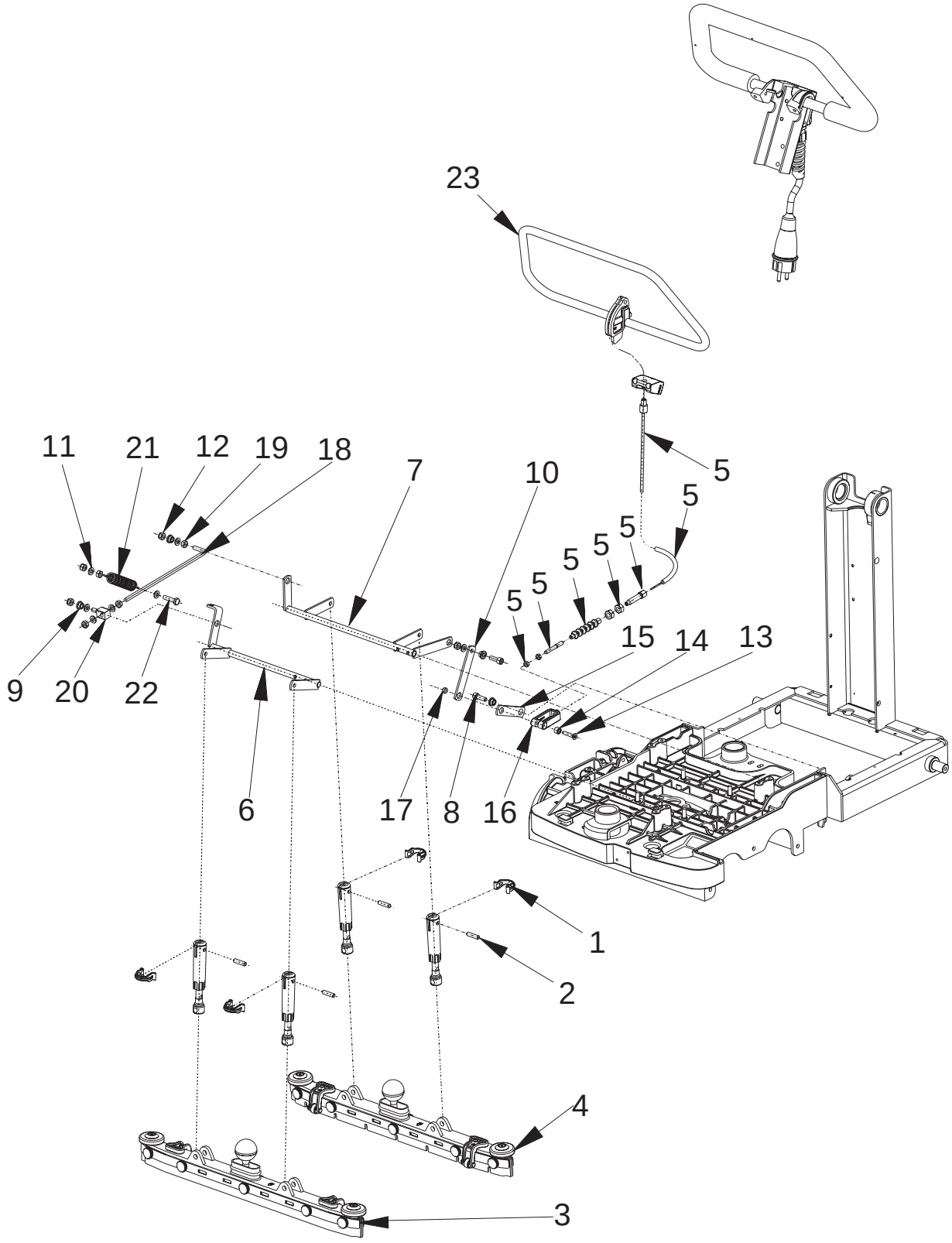

SQUEEGEE-FRONT




SQUEEGEE-REAR

# Squeegee Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130051 | Body Sqg | | 2 |
| 2 | 931170 | Valve Top | | 2 |
| 3 | 931126 | Valve Bottom | | 2 |
| 4 | 832213 | Hex. Soc. Hd Cap Screw - SS | M5X50 | 2 |
| 5 | 931233 | Lip - Sqg. Inner | | 2 |
| 6 | 931224 | Lip - Sqg. Outer | | 2 |
| 7 | 3130022 | Strip - Lip Sqg | | 4 |
| 8 | 931172 | Knob - Sqg | | 20 |
| 9 | 3180012 | Squeegee Rod Sub Assy | | 4 |
| 10 | 3130048 | Guide - Pillar Sqg | | 4 |
| 11 | 931175 | Bush Top - Pillar Sqg. | | 4 |
| 12 | 931050 | Pin 10 - Pillar Sqg | | 4 |
| 13 | 3130049 | Bush Bottom - Pillar Sqg | | 4 |
| 14 | 931251 | Spring - Pillar Sqg. | | 4 |
| 15 | 3130063 | Locking Clip-SQG Pillar | | 4 |
| 16 | 931146 | Deflector - Roller | | 4 |
| 17 | 931147 | Washer - Deflector | | 4 |
| 18 | 841108 | CSK-Self-Screw | 4.8X13 | 4 |
| 19 | 931841 | Wheel - Sqg. Assy | | 4 |
| 20 | 837210 | CRPH-Self-Screw-SS | 4.8X13 | 8 |
| 21 | 845052 | Washer - SS | 5.2X10X1.6 | 4 |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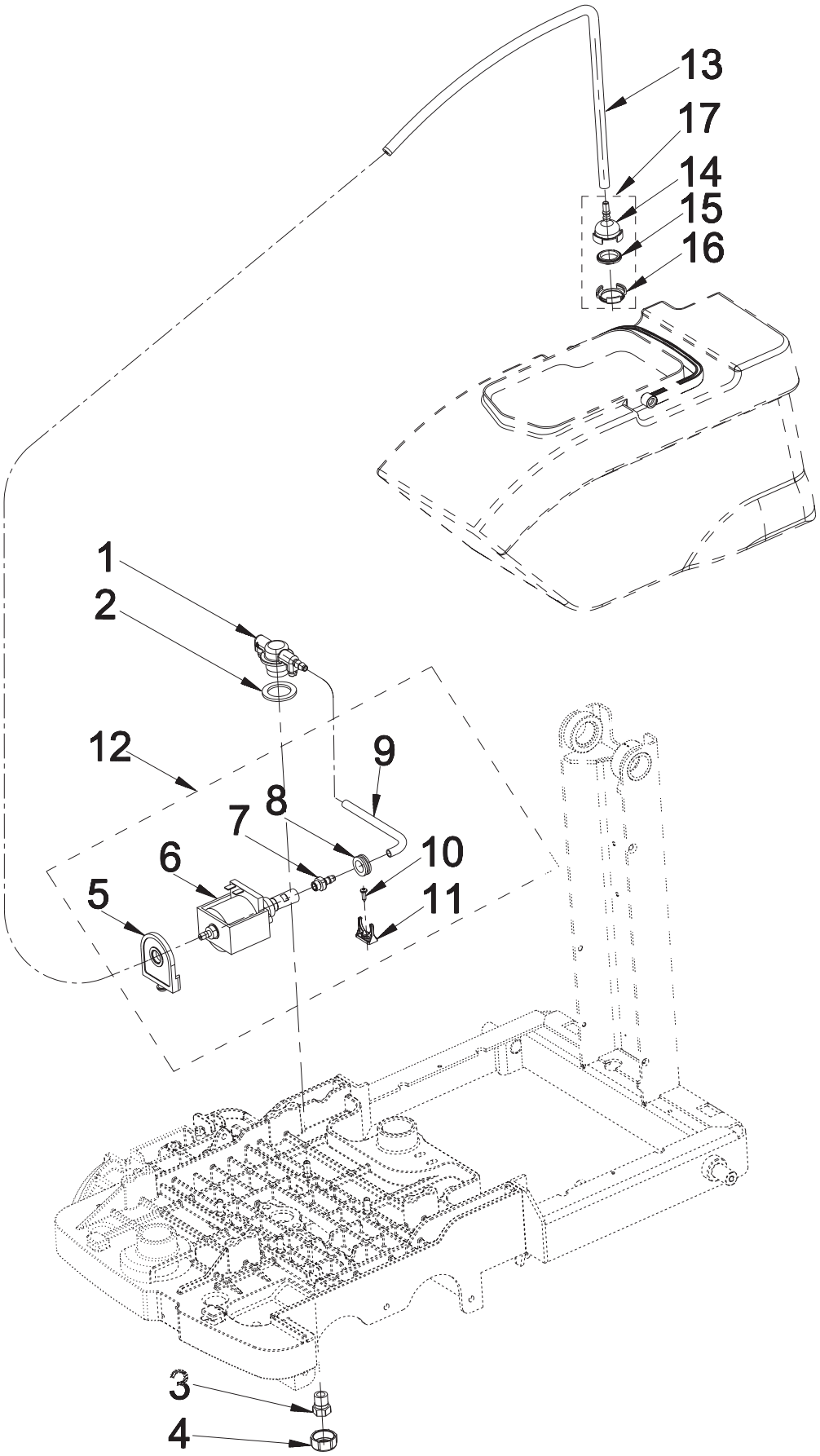
# Squeegee Lifting System

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 931181 | Clip - Clamp | | 4 |
| 2 | 931051 | Pin 6 - Pillar Sqg | | 4 |
| 3 | 3180013 | Squeegee Front | | 1 |
| 4 | 3180014 | Squeegee Rear | | 1 |
| 5 | 931804 | Cable Assy - Squeegee | | 1 |
| 6 | 3180027 | Sqg Rod Assy - Front | | 1 |
| 7 | 3180026 | Sqg. Rod Assy - Rear | | 1 |
| 8 | 831323 | Hex. Socket Head Cap Screw - St | M6X18 | 2 |
| 9 | 3130053 | Bush-SQG | | 4 |
| 10 | 931109 | Link - 75 | | 1 |
| 11 | 844061 | Washer - St | 6.4X12X1.6 | 7 |
| 12 | 859068 | Hex. Nylock Nut - St | M6 | 4 |
| 13 | 828208 | Hex-Soc-CSK-Hd-Screw | M5X25 | 1 |
| 14 | 3130052 | Bush9.8-SQG | | 1 |
| 15 | 931107 | Link - 50 | | 1 |
| 16 | 3130061 | U Bracket - Stud | | 1 |
| 17 | 822058 | Hex-Nut | M5 | 3 |
| 18 | 3130018 | Stud - Link Adj | | 1 |
| 19 | 822068 | Hex-Nut | M6 | 4 |
| 20 | 3130019 | Connector - Link | | 1 |
| 21 | 931252 | Hook - Spring | | 1 |
| 22 | 803308 | Hex Head Screw | M6X25 | 1 |
| 23 | 931819 | Shifting Lever Assy | | 1 |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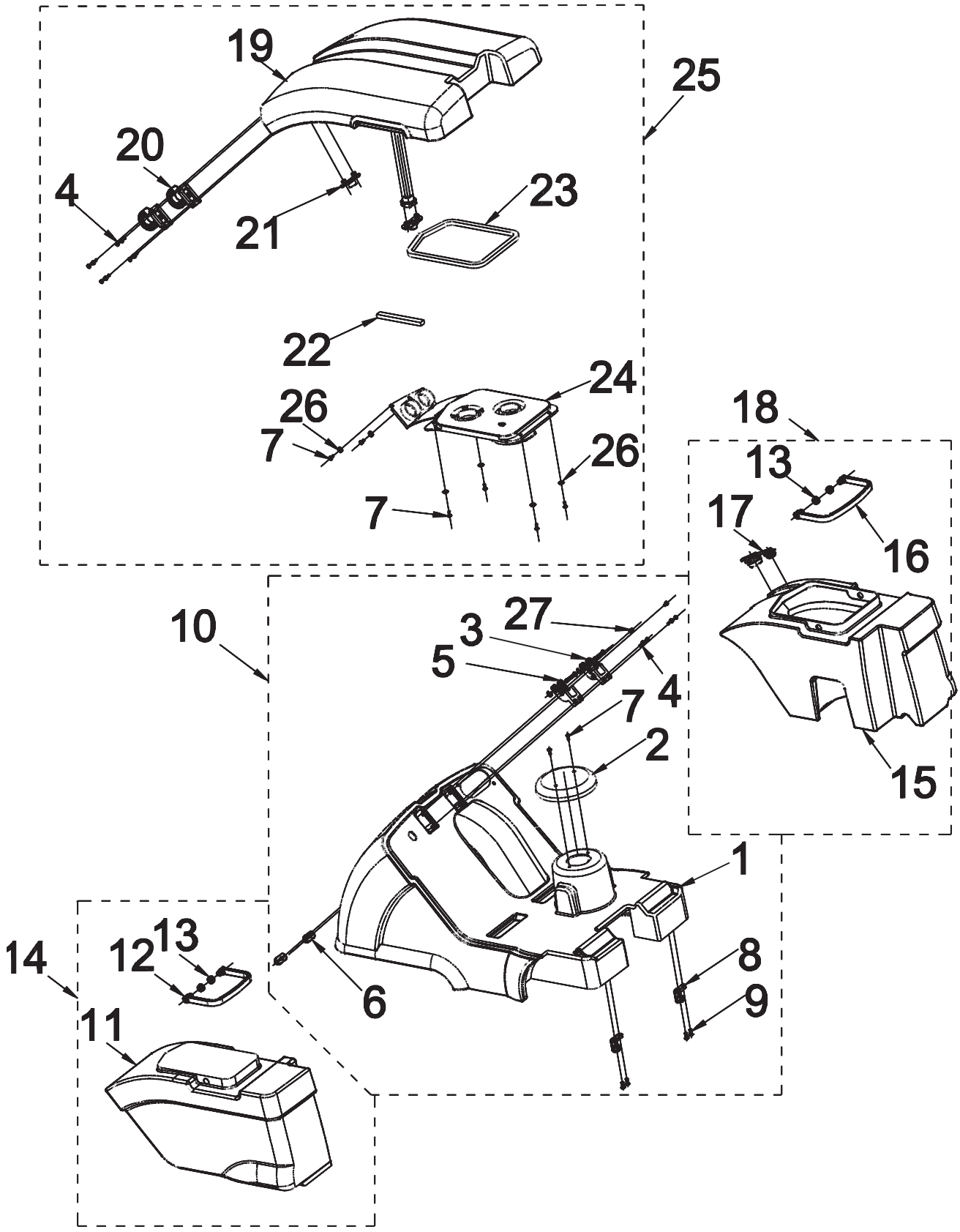
# Water Feed System

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 931142 | Holder - Nozzle | | 1 |
| 2 | 931198 | Washer - Nozzle | | 1 |
| 3 | 931816 | Nozzle Assy | | 1 |
| 4 | 931143 | Nut - Nozzle | | 1 |
| 5 | 3130113 | Vibrating Pad-Pump | | 2 |
| 6 | 925325 | Vibrating Pump | | 1 |
| 7 | 3130111 | Connector-Pump | | 1 |
| 8 | 928054 | Support Ring | | 1 |
| 9 | 3130116 | Hose - Nozzle | | 1 |
| 10 | 836004 | CRPH Self Screw - SS | 3.5X13 | 1 |
| 11 | 3130112 | Clamp-Pump | | 1 |
| 12 | 3180063 | Pump Assy 115V 60Hz | | 1 |
| 13 | 931290 | Hose - Pump | L=875.0±5.0 | 1 |
| 14 | 928062 | Body-Filter | | 1 |
| 15 | 928063 | Filter | | 1 |
| 16 | 3130074 | Cap-Filter | | 1 |
| 17 | 931809 | Filter Assy | | 1 |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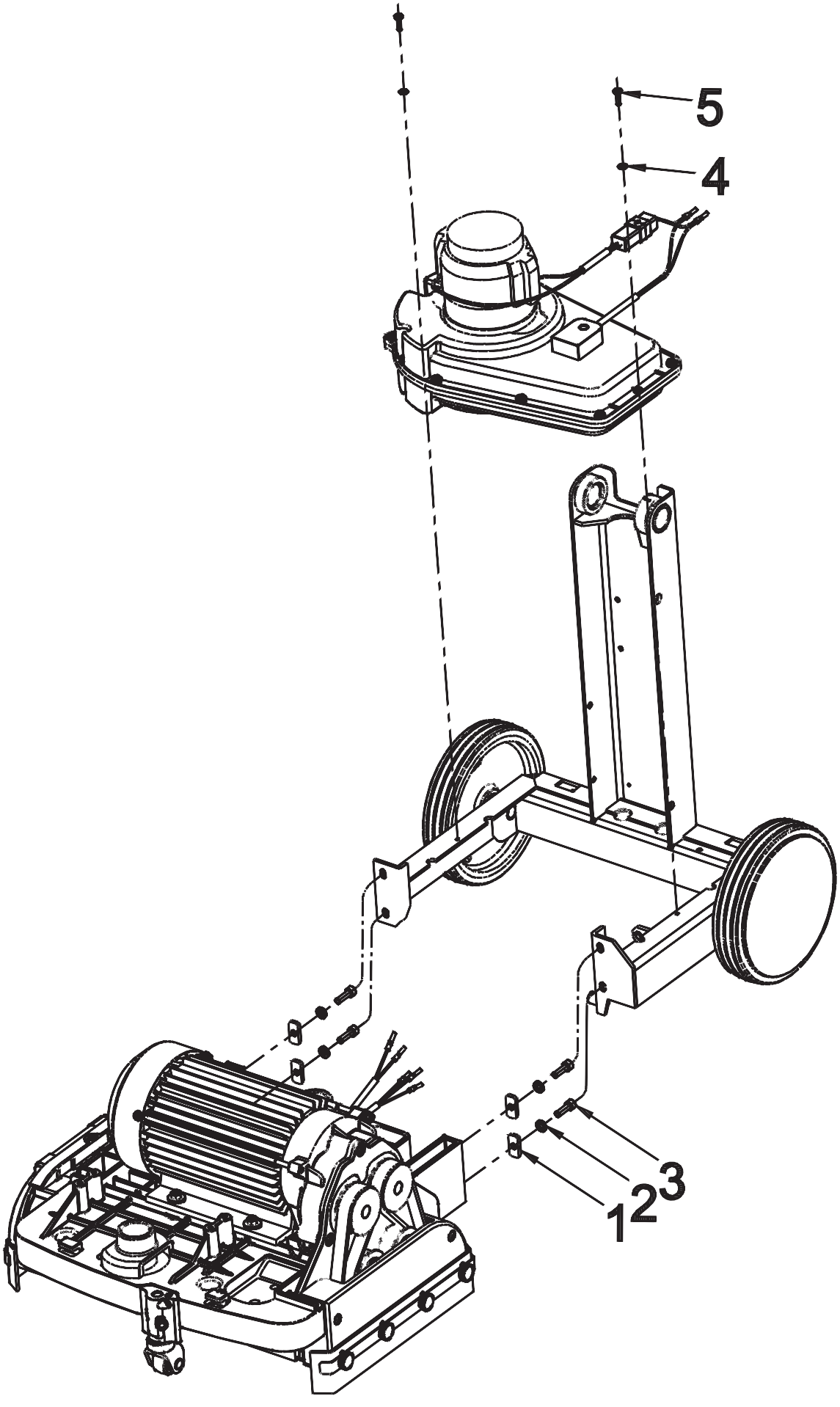
# Tank Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130117 | Bottom Housing | | 1 |
| 2 | 931125 | Cap - V.M | | 1 |
| 3 | 931144 | Yoke Hinge - Lid (Right) | | 1 |
| 4 | 836206 | CRPH Self Screw-SS | 3.5X16 | 12 |
| 5 | 931162 | Yoke Hinge - Lid (Left) | | 1 |
| 6 | 3130068 | Mounting Plate - Bot. Hsg | | 2 |
| 7 | 836004 | CRPH Self Screw - SS | 3.5X13 | 8 |
| 8 | 931159 | Bracket - Housing | | 2 |
| 9 | 812104 | CRCSK Screw - St | M4X12 | 4 |
| 10 | 3180057 | Bottom Housing Assy | | 1 |
| 11 | 3130119 | Tank - Fresh | | 1 |
| 12 | 3130060 | Handle - Fresh | | 1 |
| 13 | 3130050 | Spacer - Tank | | 4 |
| 14 | 3180059 | Tank - Fresh assy | | 1 |
| 15 | 3130118 | Tank - Collection | | 1 |
| 16 | 3130058 | Handle - Collection | | 1 |
| 17 | 931203 | Cap - Collection Tank | | 1 |
| 18 | 3180058 | Tank - Collection Assy | | 1 |
| 19 | 931216 | Lid | | 1 |
| 20 | 931145 | Hook Hinge - Lid | | 2 |
| 21 | 931156 | Hose Guide | | 2 |
| 22 | 931265 | Gasket - Fresh | | 1 |
| 23 | 931264 | Gasket - Collection | | 1 |
| 24 | 3180046 | Holder Float Assembly | | 1 |
| 25 | 3180060 | Top Cover Assy | | 1 |
| 26 | 845039 | Washer -SS | 4.0X8.0X0.5 | 6 |
| 27 | 836003 | CRPH Self Tapping Screw-SS | 3.5X9.5(DIN 7981) | 2 |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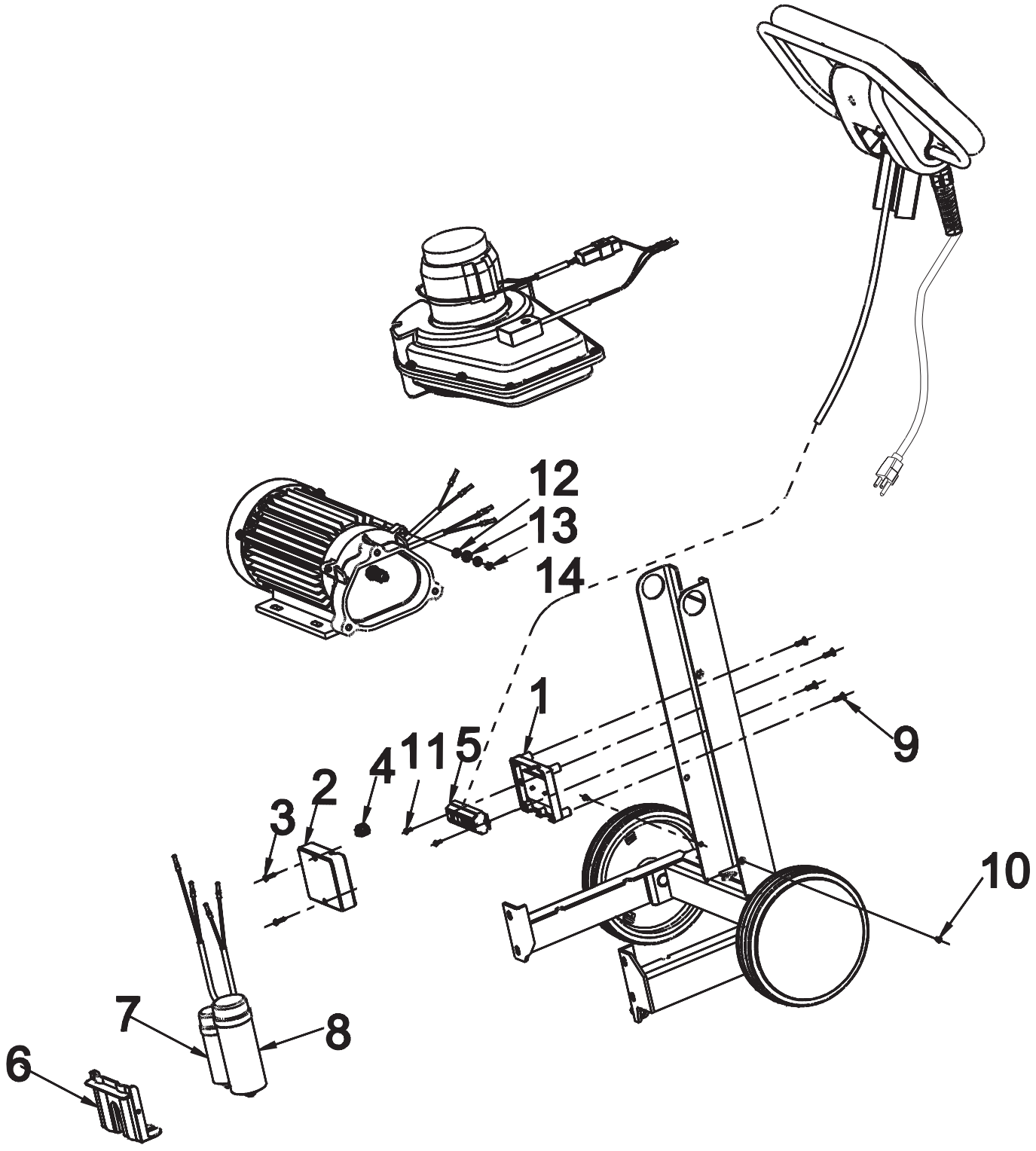
# Drive Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130040 | Support Plate-Housing | | 4 |
| 2 | 844061 | Washer | 6.4X12X16 | 4 |
| 3 | 831307 | Hex Soc Hd Cap Screw | M6X20 | 4 |
| 4 | 845041 | Washer-SS | 4.3X9X0.8 | 2 |
| 5 | 818105 | CR Pan Head-SS | M4X15 | 2 |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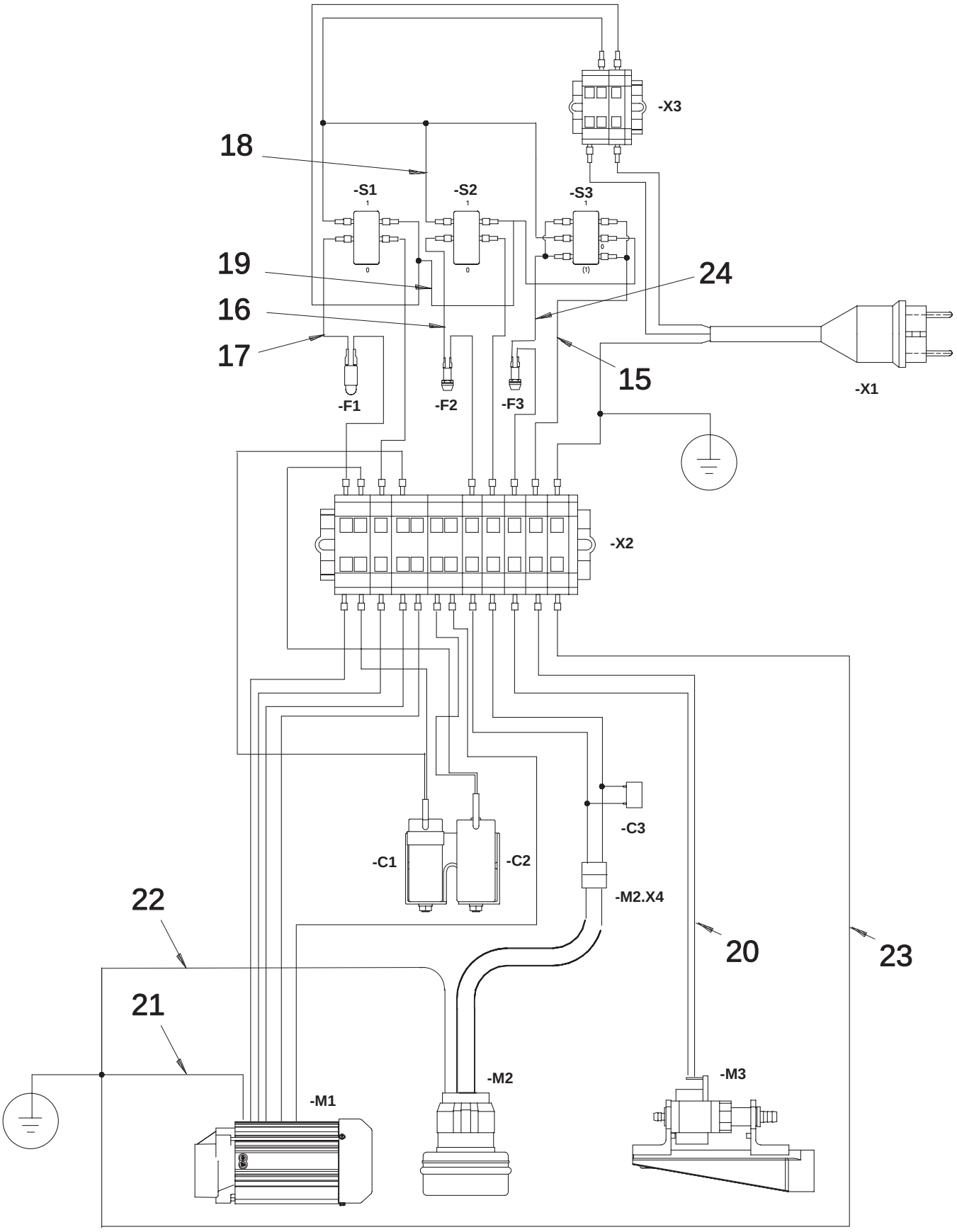
# Electrical Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 3130055 | Base - Terminal | | 1 |
| 2 | 931150 | Cover - Terminal | | 1 |
| 3 | 836006 | CRPH Self Screw - SS | 3X16 | 2 |
| 4 | 931195 | Grommet - Terminal | | 1 |
| 5 | 931844 | Connector - Pillar | | 1 |
| 6 | 931123 | Bracket - Capacitor | | 1 |
| 7 | 931876 | Capacitor - 150-200µF assy | 150-200 µF | 1 |
| 8 | 931875 | Capacitor - 60µF assy | 60µF | 1 |
| 9 | 841106 | CSK Self Screw | 4.2X16 | 4 |
| 10 | 841103 | CRCSK Head Self Screw - St | 4X10 | 2 |
| 11 | 835002 | CRPH Self Screw - St | 2.9X9.5 | 2 |
| 12 | 845052 | Washer - SS | 5.2X10X1.6 | 2 |
| 13 | 866050 | External Toothed Washer - St | M5 | 1 |
| 14 | 822058 | Hex Nut | M5 | 1 |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-C3
-C1
-C2
-M2.X4
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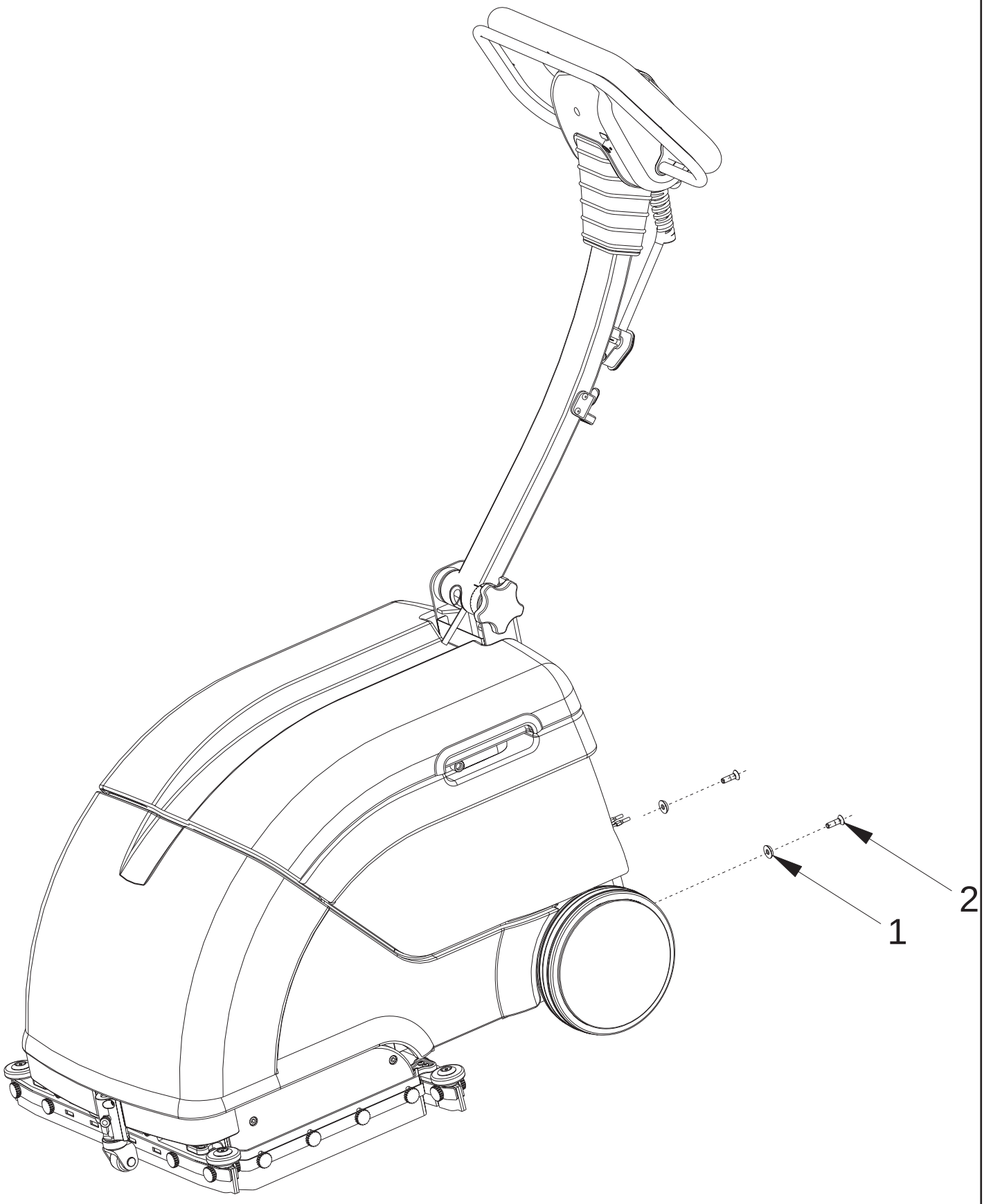
-M2
-M3
-M1

# Electrical Group

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 15 | 931874 | 7Core cable assy | | 1 |
| 16 | 931863 | Wire Assy - (S2 to F2) | | 1 |
| 17 | 931864 | Wire Assy - (S1 to F1) | | 1 |
| 18 | 931865 | Wire Assy - (X3 to S1, S2 & S3 +VE) | | 1 |
| 19 | 931866 | Wire Assy - (X3 to S1, S2 & S3 -VE) | | 1 |
| 20 | 931895 | 2 Core cable assy (Pump) | | 1 |
| 21 | 931868 | Earth cable assy (BM) | | 1 |
| 22 | 931878 | Earth cable assy (VM) | | 1 |
| 23 | 931870 | Earth cable assy (Connector) | | 1 |
| 24 | 931871 | Wire Assy-(S3 TO F3) | | 1 |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# Port A Scrub 14 Assy

| Ref. No | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 925012 | Washer-Bridge | | 2 |
| 2 | 829307 | Hex Soc CSK Hd Screw-SS | M6X20 | 2 |

# LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of one year from date of purchase. In addition, Minuteman International, Inc will, at its option, honor labor warranty claims for the first 6 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc for procedures in warranty claims against these manufacturers.

**Special warning to purchaser -** Use of replacement filters and / or pre-filters not manufactured by Minuteman International, Inc. or its designated licensees will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman International, Inc. or its original manufacturer, whichever the case may be.

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If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. Some states do not allow the exclusion of limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

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